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# MEDICINE HAT FLOODPLAIN STUDY

## SUMMARY REPORT ADDENDUM



Flooding at Medicine Hat - June, 1953



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# CANADA - ALBERTA FLOOD DAMAGE REDUCTION PROGRAM

## ADDENDUM

JAN - 6 1992

### MEDICINE HAT FLOODPLAIN STUDY

(FEBRUARY, 1991)

Prepared By: T. H. Winhold, P. Eng.  
River Engineer  
River Engineering Branch

Submitted By: M.E. Quazi, P. Eng.  
Branch Head  
River Engineering Branch







## SUMMARY

This addendum to the Medicine Hat Floodplain Study (May 1986) describes the methodology used to produce two-zone flood risk mapping for the City of Medicine Hat.

To reduce the potential for flood damages in the study reach, it is recommended that the revised flood risk maps contained in this report form the basis for regulating all future development in the flood prone areas.



## ACKNOWLEDGEMENT

The hydraulic analysis and computer modelling required for the floodway determination and preparation of the two-zone flood risk mapping was carried out by Mr. Brian Yaremko, E.I.T. (Project Engineer under contract to the Flood Damage Reduction Program). Technical review was provided by the River Engineering Branch, Alberta Environment.

### 1.0 INTRODUCTION

### 2.0 TERMINOLOGY

- 2.1 Flood Risk Area
- 2.2 Floodway
- 2.3 Flood Fringe
- 2.4 Designation

### 3.0 FLOODWAY DETERMINATION

- 3.1 Hydraulic Criteria
- 3.2 Basic Methodology
- 3.3 South Saskatchewan River
- 3.4 Confluence Region-Road Creek and Seven Persons Creek
- 3.5 Road Creek Upstream of Confluence Region
- 3.6 Seven Persons Creek Upstream of Confluence Region
  - 3.6.1 South Railway Street to Kingsway Avenue
  - 3.6.2 Kingsway Avenue to Trans Canada Highway
  - 3.6.3 Upstream of Trans Canada Highway

### 4.0 COMPUTED WATER LEVELS

### 5.0 FLOOD RISK MAPS

#### APPENDIX A: HEC-2 Model Input/Output

#### APPENDIX B: Flood Risk Maps - South Saskatchewan River

#### APPENDIX C: Flood Risk Maps - Road Creek and Seven Persons Creek





## TABLE OF CONTENTS

	<u>Page</u>
<b>SUMMARY</b>	(i)
<b>ACKNOWLEDGEMENT</b>	(ii)
<b>TABLE OF CONTENTS</b>	(iii)
<b>LIST OF TABLES</b>	(iv)
<b>1.0 INTRODUCTION</b>	1
<b>2.0 TERMINIOLOGY</b>	1
2.1 Flood Risk Area	1
2.2 Floodway	1
2.3 Flood Fringe	1
2.4 Designation	2
<b>3.0 FLOODWAY DETERMINATION</b>	2
3.1 Hydraulic Criteria	2
3.2 Basic Methodology	3
3.3 South Saskatchewan River	3
3.4 Confluence Region-Ross Creek and Seven Persons Creek	4
3.5 Ross Creek Upstream of Confluence Region	4
3.6 Seven Persons Creek Upstream of Confluence Region	4
3.6.1 South Railway Street to Kingsway Avenue	4
3.6.2 Kingsway Avenue to Trans Canada Highway	5
3.6.3 Upstream of Trans Canada Highway	5
<b>4.0 COMPUTED WATER LEVELS</b>	5
<b>5.0 FLOOD RISK MAPS</b>	9
<b>APPENDIX A HEC-2 Model Input/Output</b>	
<b>APPENDIX B Flood Risk Maps - South Saskatchewan River</b>	
<b>APPENDIX C Flood Risk Maps - Ross Creek and Seven Persons Creek</b>	





## LIST OF TABLES

	<u>Page</u>
<b>Table 4.1</b> 1:100 Year Water Surface Elevations (South Saskatchewan River)	6
<b>Table 4.2</b> 1:100 Year Water Surface Elevations (Ross Creek)	7
<b>Table 4.3</b> 1:100 Year Water Surface Elevations (Seven Persons Creek)	8



## **1.0 INTRODUCTION**

In April, 1989, Canada and Alberta signed "An Agreement Respecting Flood Damage Reduction and Flood Risk Mapping in Alberta". This agreement initiated the Canada - Alberta Flood Damage Reduction Program (FDRP) which provides for the identification and mapping of flood risk areas in urban communities across the province. The Medicine Hat Floodplain Study (1986) was accepted as meeting the basic requirements of the FDRP with respect to hydrologic analysis, surveys and mapping standards. However, it was felt that the existing maps, should be revised to include a two-zone (floodway/flood fringe) designation. This would be consistent with the flood risk mapping currently being produced for other Alberta communities under the FDRP.

The hydraulic analysis which was undertaken to determine the floodway boundaries within the study area is described in the following sections. Computer printout for the final model runs are included in Appendix A and the revised flood risk maps are presented in Appendix B (South Saskatchewan River) and Appendix C (Ross Creek and Seven Persons Creek).

## **2.0 TERMINOLOGY**

The following terminology has been adopted by the FDRP Technical Committee.

### **2.1 Flood Risk Area**

The flood risk area is the area which would be inundated by the design flood. In Alberta, the adopted design flood is the so called 1:100 year flood which is an extreme event having a one percent chance of being equalled or exceeded in any year.

The flood risk area includes the floodway and the flood fringe. These two terms are defined below.

### **2.2 Floodway**

The floodway is that portion of the flood risk area where the flood waters are deepest, fastest and most destructive. It is a constricted channel area within which the entire design flood can be conveyed without raising water levels or increasing flow velocities beyond specified limits. The criteria used to determine the physical limits of the floodway are described in Section 3.1.

### **2.3 Flood Fringe**

The flood fringe is the outer portion of the flood risk area. The water in this zone is shallower and flows more slowly than in the floodway. Conditions are generally less hazardous than in the floodway.





## 2.4 Designation

As flood risk maps are completed, the federal and provincial ministers responsible for the FDRP will designate the flood risk area as a zone wherein certain government policies will apply. These policies discourage most types of development in the designated floodway. Development is generally allowed in the flood fringe provided it is adequately flood proofed (i.e., measures taken to permanently protect development from flood damage at the design flood level).

## 3.0 FLOODWAY DETERMINATION

### 3.1 Hydraulic Criteria

Under the FDRP, the following hydraulic criteria have been adopted for determining floodway limits:

1. The water surface profile shall not exceed 0.3 m (or less as specified by the Technical Committee for Canada-Alberta FDRP) above the profile for the design flood under existing floodplain conditions.
2. In general, all areas where the depth of flooding exceeds 1 m or the velocities are above 1 m/s shall become a part of the floodway. However, in order to achieve an hydraulically smooth floodway boundary, some areas with depths exceeding 1 m and velocities exceeding 1 m/s will inevitably become part of the flood fringe.
3. In river reaches where the existing mean channel velocities are excessive, the encroachments for the floodway should be minimized so that the existing velocities are not further increased.
4. In reaches of supercritical flow, no encroachment shall be introduced.
5. In the case of ice jam flooding, areas with depths of flooding of 1 m or more shall become a part of the floodway.

These criteria are intended to limit the flood hazard in the flood fringe and to minimize increases in upstream water levels. They are generally referred to as the depth-velocity-rise criteria.





### 3.2 Basic Methodology

The depth-velocity-rise criteria discussed in the previous Section were used to define the limits of the floodway along the South Saskatchewan River and along its two tributaries, Seven Persons Creek and Ross Creek. The application of these criteria involved the following steps:

- Step 1 Define the floodway limits according to the depth criterion.
- Step 2 Modify the HEC-2 computer model developed in the 1986 Floodplain Study (using Floodway Encroachment Method 1) and model the proposed floodway in Step 1.
- Step 3 Compute the water surface profile for the 1:100 year (design) flood with floodway encroachments.
- Step 4 Check the velocity criterion using the Flow Distribution Option in the HEC-2 program.
- Step 5 Check the rise criterion by comparing water levels computed with floodway encroachments to those computed without floodway encroachments.
- Step 6 If necessary, repeat steps 3-5 with an expanded floodway (successive trials) until the velocity and rise criteria are satisfied at each cross-section.
- Step 7 Check the 1 m depth criterion to ensure that the floodway assumed in Step 1 is still acceptable.

### 3.3 South Saskatchewan River

The determination of the floodway limits along the South Saskatchewan River at Medicine Hat was a relatively straightforward process which followed the basic methodology as outlined in Section 3.2. The governing criterion for defining the floodway limits throughout the study reach was found to be the 1 m depth criterion. This result is consistent with the general finding that most of the flow occurs in the main channel and immediate overbank areas. The percentage volume of flow in areas which are inundated to a depth of less than 1 m during the design (1:100 year) flood is relatively small, and the corresponding flow velocity is generally much less than 1m/s. Encroachment to the 1 m depth contour did not result in any significant increase in flood levels, thereby making it possible to satisfy the 0.3 m rise criteria at each cross-section included in the computational procedure.



### **3.4 Confluence Region - Ross Creek and Seven Persons Creek**

For the purposes of this discussion, the confluence region includes the reaches downstream of the Hwy 41A bridge crossing on Ross Creek and downstream of South Railway Street on Seven Persons Creek. This encompasses the area where the tributaries join before entering the South Saskatchewan River. In this area, the highest flood levels are generally caused by backwater resulting from a 1:100 year event on the South Saskatchewan River. Consequently, these levels were used to define the outer limits of the flood risk area.

The floodway limits in the confluence region were determined by applying the depth-velocity-rise criteria to the respective 1:100 year flood conditions on the two creeks (coincident peaks assumed). In general, the depth criterion was found to govern because velocities in the overbank areas were within acceptable limits, and encroachment to the 1 m depth contour did not significantly increase water levels. The final alignment chosen for the floodway limits was adjusted as necessary to ensure an hydraulically smooth boundary.

### **3.5 Ross Creek Upstream of Confluence Region**

The depth criterion governed the determination of the floodway limits in the short reach upstream of Hwy 41A. The final alignment was adjusted as required to ensure an hydraulically smooth floodway boundary.

### **3.6 Seven Persons Creek Upstream of Confluence Region**

#### **3.6.1 South Railway Street to Kingsway Avenue**

In this reach, primary consideration was given to safeguarding the South Flats residential neighbourhood, which is roughly bounded by Kingsway Avenue on the west, 12 Street S.E. to the south and South Railway Street to the east. The floodway limits, which, on the left bank, follow Spencer Street east from Kingsway Avenue as far as the CP Rail spur line and then east along the spur line to Factory Street, were determined in a manner designed to produce a negligible rise in the 1:100 year water surface profile.

The floodway east of the Ogilvie Mills property was kept intentionally wide in order to convey potential flows in the left overbank with a sufficient margin of safety. A margin of safety was judged to be both desirable and justifiable considering the size of the residential area which would be impacted by any additional increase in water levels. Both the inherent difficulty in modelling the complex interaction of flow between the channel and floodplain in this reach and the possibility of ice or debris blockage through the bridge crossings were factors which presented an additional degree of uncertainty, and therefore dictated that a conservative approach be taken.





### 3.6.2 Kingsway Avenue to Trans Canada Highway

The floodway limits in this reach were determined with primary consideration given to the fact that at the College Avenue crossing, a substantial portion of the flow during a 1:100 year flood is forced out of the channel and into the left overbank due to inadequate culvert capacity. Downstream of this point, considerable flow would be carried along Kipling Street, and thus, the roadway itself logically forms the north boundary of the floodway through the central portion of this reach. At the point where Kipling Street turns north to Spencer Street, the floodway widens as the boundary follows the railway spur line to Kingsway Avenue.

Through Kin Coulee Park, at the upstream end of this reach, the floodway includes the main channel and immediate overbank areas. Two sections of the park, one on each side of the channel, feature old meander loops (oxbows) which have been cut off from the main flow. Since these former channels no longer play a significant role in conveying flood flows, they were excluded from the floodway.

### 3.6.3 Upstream of Trans Canada Highway

In the currently undeveloped reach upstream of the Trans Canada Highway the floodway was determined on the basis of the 1 m depth criterion with the final alignment adjusted to ensure an hydraulically smooth boundary and to maintain a reasonable setback from the sharply meandering bank line.

## 4.0 COMPUTED WATER LEVELS

The computed water levels for design conditions (ie., 1:100 year flood with all flow confined to the floodway) are presented in Tables 4.1-4.3. It is recommended that the elevations listed in these tables be used when determining flood proofing requirements for future development in floodprone areas of Medicine Hat.

HEC-2 model input/output (Final runs) for the respective design floods on the South Saskatchewan River, Ross Creek, and Seven Persons Creek are provided in Appendix A.



**TABLE 4.1**  
**1:100 YEAR WATER SURFACE ELEVATIONS**  
**(SOUTH SASKATCHEWAN RIVER)**

<u>X-Section<sup>1</sup></u> <u>Number</u>	<u>Water<sup>2</sup></u> <u>Level</u> <u>(m)</u>	<u>X-Section<sup>1</sup></u> <u>Number</u>	<u>Water<sup>2</sup></u> <u>Level</u> <u>(m)</u>	<u>X-Section<sup>1</sup></u> <u>Number</u>	<u>Water<sup>2</sup></u> <u>Level</u> <u>(m)</u>
1	667.63	27	662.50	53	657.25
2	667.40	28	662.15	54	656.59
3	667.22	29	662.10	55	656.69
4	667.01	30	662.03	56	656.08
5	666.69	31	662.07	57	655.64
6	666.38	32	661.95	58	655.35
7	666.32	33	661.97	59	654.81
8	665.87	34	661.87	60	654.69
9	665.57	35	661.89	61	654.43
10	665.43	36	661.79	62	654.05
11	665.10	37	661.69	63	653.58
12	664.81	38	661.65	64	653.10
13	664.62	39	661.67	65	652.67
14	664.48	40	661.64	66	652.56
15	664.35	41	661.06	67	652.17
16	664.16	42	660.74	68	651.53
17	664.08	43	660.42	69	651.27
18	663.93	44	660.07	70	650.58
19	663.86	45	660.07	71	650.52
20	663.55	46	659.41	72	649.77
21	663.56	47	659.44	73	649.51
22	663.53	48	659.17	74	649.35
23	663.10	49	658.38	75	648.46
24	663.06	50	658.08	76	648.04
25	662.92	51	657.99	77	647.89
26	662.71	52	657.68		

<sup>1</sup> Cross-section locations are shown on the Flood Risk Maps in Appendix B.

<sup>2</sup> Design Flood Level (with Floodway).



**TABLE 4.2**  
**1:100 YEAR WATER SURFACE ELEVATIONS**  
**(ROSS CREEK)**

<u>X-Section<sup>1</sup></u> <u>Number</u>	<u>Water Level (m)</u>	
	<u>Creek<sup>2</sup></u>	<u>Backwater<sup>3</sup></u>
1	655.26	660.10
2	656.60	660.10
3.1	657.61	660.10
3.2	658.48	660.10
3.3	659.08	660.10
4.1	659.14	660.10
4.4	659.17	660.10
4.5	659.18	660.10
17	659.62	660.10
16	659.69	660.10
15	660.00	660.10
14	660.02	660.10
13	660.10	660.10
12.2	660.22	
12.1	660.46	
11	660.58	
9	660.93	
8	661.21	
7.1	661.44	
7	661.55	
6.1	661.73	
5	662.34	
4	662.64	
3	662.78	
2	662.88	
1.1	662.92	
1	663.07	

<sup>1</sup> Cross-section locations are shown on the Flood Risk Maps in Appendix C.

<sup>2</sup> Water levels computed for a 1:100 year flood on Ross Creek (with floodway) and coincident flood peak on Seven Persons Creek.

<sup>3</sup> Backwater flood levels for a 1:100 year flood on the South Saskatchewan River.





**TABLE 4.3**  
**1:100 YEAR WATER SURFACE ELEVATIONS**  
**(SEVEN PERSONS CREEK)**

<u>X-Section <sup>1</sup></u> <u>Number</u>	<u>Water Level (m)</u>		<u>X-Section <sup>1</sup></u> <u>Number</u>	<u>Water Level (m)</u> <u>Creek <sup>2</sup></u>
	<u>Creek <sup>2</sup></u>	<u>Backwater <sup>3</sup></u>		
1	655.26	660.10	24	664.25
2	656.60	660.10	24.1	664.40
3.1	657.61	660.10	24.4	666.00
3.2	658.48	660.10	27	666.13
3.3	659.08	660.10	28	666.30
4.1	659.14	660.10	29	666.61
4.4	659.17	660.10	29.1	666.69
4.5	659.21	660.10	29.3	667.05
5	659.23	660.10	29.4	668.46
6	659.34	660.10	30	668.73
8.1	659.48	660.10	33	670.17
10	659.60	660.10	34	671.48
11	659.68	660.10	35	671.91
12	659.68	660.10	36	672.74
13	659.72	660.10	37	673.98
14	659.86	660.10	38	674.73
15	659.87		39	677.11
16	660.37		40	678.00
17	661.12		41	678.78
18	662.00		42	679.14
19	662.14		43	681.91
20	662.33		44	682.53
21	662.51		45	683.03
22	662.76		46	684.40
22.1	662.95		47	685.14
22.4	663.43		47.1	687.16
23	663.53		48	688.86
23.1	663.63		49	690.38
23.4	664.09			

<sup>1</sup> Cross-section locations are shown on the Flood Risk Maps in Appendix C.

<sup>2</sup> Water levels computed for a 1:100 year flood on Seven Persons Creek (with floodway) and coincident peak on Ross Creek.

<sup>3</sup> Backwater flood levels for a 1:100 year flood on the South Saskatchewan River.



## 5.0 FLOOD RISK MAPS

The resultant two-zone flood risk maps for Medicine Hat are presented in:

Appendix A      South Saskatchewan River  
                            (Sheets 1-12)

Appendix B      Ross Creek and Seven Persons Creek  
                            (Sheets 1-5)

Each set of maps is preceded by an index plan.









## **APPENDIX A**

### **HEC-2 Model Input/Output**



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* VERSION OF NOVEMBER 1976
* UPDATED MAY 1984
* IBM-PC-KT VERSION AUGUST 1985
* RUN DATE 2-4-91 TIME 15:49:24
*****

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*****
* U.S. ARMY CORPS OF ENGINEERS
* THE HYDROLOGIC ENGINEERING CENTER
* 609 SECOND STREET, SUITE D
* DAVIS, CALIFORNIA 95616
* (916) 440-2105 (FTS) 448-2105
*****

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X X XXXXXX XXXX XXXX
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X X X X X X
X X X X X X
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1 2-4-91 15:49:24 PAGE 1

THIS RUN EXECUTED 2-4-91

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ERROR CORR - 01,02,03,04,05,06
MODIFICATION - 50,51,52,53,54,55,56
IBM-PC-KT VERSION AUGUST 1985
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T2 1/100 YEAR Q = 5230 CMS MANNING'S 'N' = 0.028
T3 SOUTH SASKATCHEWAN RIVER B YAREMKO 24/10/89

J1 ICHECK INQ NINV IDIR STRT METRIC HVINS Q WSEL FQ
0. 0. 0. 0. .000500 1.00 .0 5230. 648.000 .000

J2 NPROF IPLOT PAFVS XSECV XSECH FN ALLDC ISW CHNIM ITRACE
-1.000 .000 -1.000 .000 .000 -1.933 .000 .000 .000 15.000

J3 VARIABLE CODES FOR SUMMARY PRINTOUT
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NC .070 .070 .030 .100 .300 .000 .000 .000 .000 .000
X1 77.000 66.000 59.200 246.700 .000 .000 .000 .000 .000 .000
GR 665.250 .000 664.250 3.700 661.650 6.800 658.850 9.000 656.550 13.200
GR 655.650 15.400 656.150 16.400 655.550 18.700 652.950 19.500 651.650 21.800
GR 651.450 24.500 650.350 27.500 649.650 28.700 648.850 34.700 647.750 35.700
GR 646.850 40.200 646.050 42.500 645.350 47.300 644.850 48.500 644.760 59.200
GR 644.350 63.000 642.950 64.700 642.120 68.300 640.820 74.100 640.220 86.900
GR 640.300 87.900 640.300 95.000 639.500 100.000 639.500 103.300 639.500 118.700
GR 639.400 134.200 639.700 149.600 639.400 165.000 639.400 180.500 640.000 195.900
GR 640.400 211.400 640.720 213.900 642.110 225.100 642.350 246.700 642.750 269.100
GR 642.950 291.400 643.150 314.900 643.350 336.000 643.850 359.600 643.750 382.600
GR 643.750 406.000 643.950 428.000 644.550 441.700 644.250 449.000 643.350 471.000
GR 645.350 478.500 646.450 483.200 646.450 487.900 649.050 498.600 650.450 517.500
GR 650.950 542.000 650.950 552.000 650.450 574.500 651.050 596.300 651.350 619.000

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1 2-4-91 15:49:24 PAGE 2

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GR 652.350 641.000 652.750 663.900 653.150 686.500 654.450 709.000 655.950 729.200
GR 657.550 737.700 .000 .000 .000 .000 .000 .000 .000 .000

X1 76.000 67.000 24.300 189.700 600.000 600.000 600.000 .000 .000 .000
GR 658.400 .000 655.600 1.100 655.200 4.700 651.900 8.300 649.700 10.700
GR 648.900 17.700 648.200 18.200 648.060 18.880 647.400 20.800 644.800 22.800
GR 644.700 24.300 643.400 25.100 642.460 28.360 641.360 28.360 640.300 31.400
GR 637.100 50.000 637.000 53.800 637.200 56.200 638.500 81.100 641.400 106.000
GR 640.000 130.800 640.900 155.700 641.000 180.600 641.360 183.060 642.510 186.230
GR 644.700 189.700 644.700 206.900 645.320 214.560 646.000 226.600 646.000 247.300
GR 646.700 260.400 646.300 282.600 646.700 302.200 647.400 316.800 648.300 335.700
GR 648.600 356.400 648.900 376.700 649.400 406.500 649.500 417.800 651.100 438.200
GR 650.200 458.600 650.400 479.400 650.600 500.000 650.800 520.200 651.700 541.000
GR 652.100 561.000 652.900 581.000 653.900 624.500 652.900 644.800 653.500 654.700
GR 653.400 675.000 653.000 696.800 653.600 717.700 654.440 740.530 655.200 763.600
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GR 656.600 892.200 655.700 915.500 655.800 938.200 656.000 961.900 656.800 984.100
GR 657.500 1003.200 658.500 1021.000 .000 .000 .000 .000 .000 .000

NH 4.000 .050 20.500 .030 184.000 .070 256.000 .040 1118.300 .000
X1 75.000 69.000 20.500 184.000 655.000 635.000 .000 .000 .000 .000
X3 .000 .000 .000 .000 .000 270.000 .000 .000 .000 .000
GR 658.360 .000 654.960 9.400 654.260 12.900 654.960 18.900 655.560 20.500
GR 654.660 21.300 653.860 25.700 652.060 29.500 651.660 32.080 650.560 33.900
GR 647.360 35.100 643.660 38.900 643.260 40.100 642.480 40.800 641.460 42.700
GR 640.500 45.200 640.600 54.000 640.200 64.600 640.100 72.600 636.400 84.000
GR 637.700 103.400 638.700 122.800 640.000 142.200 641.100 161.600 641.460 164.600
GR 642.590 176.540 643.960 184.000 644.560 204.200 643.960 214.200 644.160 223.500
GR 645.860 235.500 646.460 256.000 647.560 273.200 648.560 290.200 649.760 309.100
GR 649.910 323.000 650.160 348.200 650.460 375.200 650.660 400.200 650.960 426.000
GR 650.960 451.000 650.960 540.760 650.760 505.760 650.760 531.760 650.960 558.700
GR 651.360 585.300 651.860 612.500 651.960 638.200 652.250 665.420 652.660 692.700
GR 654.160 714.200 654.260 732.200 653.860 742.000 653.860 756.300 653.360 778.000
GR 654.260 801.200 654.660 824.700 654.660 848.000 655.460 872.000 655.560 894.000
GR 655.560 916.300 655.060 940.200 654.960 965.400 655.760 991.300 655.960 1018.300
GR 656.260 1045.000 656.760 1068.400 656.960 1091.200 657.760 1118.300 .000 .000

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1 2-4-91 15:49:24 PAGE 3

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X1 74.000 49.000 150.000 379.400 940.000 610.000 870.000 .000 .000 .000
X3 .000 .000 .000 .000 .000 475.000 .000 .000 .000 .000
GR 658.470 .000 657.270 10.000 656.070 12.400 657.170 15.200 654.770 32.500
GR 652.470 47.100 649.670 56.600 647.770 64.500 647.370 65.700 646.870 69.400

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GR	646.170	97.800	645.770	126.000	645.830	150.000	645.570	151.500	644.170	154.500
GR	643.040	159.700	642.470	163.400	641.800	168.400	641.800	185.000	641.600	201.900
GR	641.500	224.000	641.600	235.500	641.900	249.000	641.900	302.600	641.900	336.100
GR	642.000	369.700	642.470	373.700	643.000	379.400	643.570	390.800	644.570	412.100
GR	645.870	433.400	647.570	455.000	649.700	482.000	649.970	509.700	651.170	530.000
GR	651.570	555.500	651.370	582.800	651.570	610.600	651.570	637.400	651.570	663.600
GR	651.570	690.000	651.370	717.000	651.570	744.300	651.570	771.400	652.070	783.200
GR	651.970	808.800	651.970	834.700	652.070	861.400	652.170	876.100	.000	7.000
NB	3.000	.040	752.300	.070	794.200	.030	1011.900	.000	.000	.000
X1	73.000	77.000	794.200	1011.900	655.000	600.000	640.000	.000	.000	.000
X3	.000	.000	.000	660.000	.000	.000	.000	.000	.000	.000
GR	662.410	.000	661.010	4.800	659.410	12.300	657.410	16.200	656.810	22.000
GR	656.210	25.600	655.910	27.800	654.910	37.200	653.910	47.000	652.910	58.200
GR	654.210	70.700	654.710	80.300	654.210	94.900	653.410	102.800	653.510	117.200
GR	654.110	120.300	653.710	131.300	653.510	152.600	653.010	177.300	653.110	183.800
GR	653.210	186.500	653.310	192.900	653.010	194.800	653.110	218.700	653.110	219.500
GR	652.410	220.800	653.210	222.600	652.810	223.600	653.210	224.700	652.910	225.900
GR	652.510	243.600	652.010	278.800	651.510	314.000	651.310	348.700	651.210	383.200
GR	651.110	417.800	650.510	466.800	650.910	462.400	649.110	466.200	650.810	467.800
GR	650.410	500.000	650.410	533.000	650.310	545.600	649.910	598.400	649.510	630.400
GR	648.510	663.000	647.610	695.900	646.810	729.500	646.310	752.300	646.610	753.900
GR	646.710	755.600	646.210	758.300	645.710	768.300	645.810	774.900	646.010	776.600
GR	645.910	782.400	645.110	789.200	643.000	793.900	645.110	794.200	642.500	798.400
GR	642.000	828.600	641.200	858.700	641.000	888.900	641.200	904.000	641.000	919.100
GR	641.100	925.000	641.900	934.000	642.300	949.300	642.000	964.000	642.500	979.500
GR	643.000	981.500	643.410	982.700	650.740	989.600	656.140	998.300	660.740	1006.800
GR	661.570	1010.000	661.540	1011.900	.000	.000	.000	.000	.000	.000

1 2- 4-91 15:49:24

PAGE 4

NB	4.000	.040	751.900	.070	809.200	.030	981.300	.050	1009.900	.000
X1	72.000	100.000	809.200	981.300	535.000	645.000	605.000	.000	.000	.000
X3	.000	.000	.000	740.000	.000	.000	.000	.000	.000	.000
GR	657.220	60.400	657.020	65.900	656.420	71.100	656.020	72.500	655.920	73.800
GR	655.220	75.600	655.420	69.800	658.540	77.200	658.720	78.800	658.440	79.400
GR	655.320	81.900	654.620	116.000	654.120	148.100	653.720	181.800	653.120	215.000
GR	652.520	245.800	652.320	278.300	651.920	310.000	651.620	344.000	651.720	375.200
GR	651.520	407.000	651.120	417.600	651.520	419.500	651.620	422.400	652.020	423.900
GR	651.920	425.500	652.120	426.000	652.220	426.900	652.020	440.800	651.520	444.400
GR	651.520	451.200	651.920	455.100	651.020	469.400	650.220	483.200	651.320	487.800
GR	650.820	531.200	650.920	561.100	651.520	581.500	651.220	591.400	650.620	598.000
GR	649.620	607.400	648.920	637.400	648.220	668.900	647.720	677.800	648.320	687.100
GR	648.520	700.600	648.920	706.400	649.020	716.500	648.220	725.500	648.320	733.200
GR	648.220	739.200	648.720	743.600	647.220	747.500	647.220	751.900	646.420	757.800
GR	646.720	761.700	647.320	765.900	646.920	767.500	647.120	770.600	647.020	774.100
GR	646.860	778.800	646.620	781.600	646.120	784.200	646.220	788.900	645.920	792.000
GR	645.420	793.600	645.520	795.700	645.720	798.700	645.220	801.700	645.320	808.200
GR	645.520	809.200	645.420	812.900	644.220	816.700	643.720	822.200	643.510	825.500
GR	643.120	826.300	642.600	830.800	642.500	839.000	643.100	848.100	641.600	865.300
GR	640.900	882.600	642.300	899.900	639.000	909.000	640.200	919.200	639.400	930.000
GR	640.600	922.000	640.300	925.000	640.800	934.400	641.700	937.000	642.000	949.000
GR	641.800	951.700	641.600	958.000	642.500	969.000	643.220	970.500	643.510	973.000
GR	645.790	977.000	651.190	981.300	657.990	989.500	670.090	1008.400	670.210	1009.900
NB	4.000	.040	605.500	.050	628.400	.030	892.300	.050	1142.100	.000
X1	71.000	85.000	628.400	892.300	545.000	710.000	645.000	.000	.000	.000
X3	.000	.000	.000	562.000	.000	920.000	.000	.000	.000	.000
GR	663.840	.000	661.440	13.500	659.440	48.800	658.540	58.200	658.240	61.000
GR	658.440	62.900	658.440	69.800	657.540	71.500	657.540	73.800	657.440	75.400
GR	657.940	148.100	658.240	149.600	657.840	156.900	657.840	158.100	657.140	179.100
GR	657.140	181.900	656.640	184.200	656.940	185.300	656.940	186.000	656.640	186.600
GR	656.940	187.600	656.640	188.800	655.740	200.500	654.840	246.800	654.400	294.100
GR	653.240	341.800	652.740	389.900	652.440	437.300	652.240	484.600	652.040	528.900
GR	652.340	530.500	652.040	532.140	652.040	533.000	651.840	534.400	650.840	547.800
GR	648.740	570.300	648.030	666.000	646.940	617.400	646.040	625.400	645.340	630.000
GR	645.140	632.300	644.640	633.800	644.440	634.000	644.140	635.000	643.640	636.500
GR	643.100	637.000	643.100	648.000	642.600	657.400	642.600	670.000	642.100	677.800
GR	642.400	688.000	642.200	690.000	641.900	698.200	642.900	708.000	643.100	718.700

1 2- 4-91 15:49:24

PAGE 5

GR	643.140	720.200	643.340	733.500	643.540	751.800	643.440	777.400	643.340	792.500
GR	642.940	803.500	643.000	809.500	643.000	813.000	642.700	820.000	642.400	827.000
GR	642.300	834.500	642.700	849.000	643.000	863.500	643.540	867.500	644.040	870.700
GR	645.040	874.300	645.840	880.700	646.540	892.300	648.940	907.800	650.140	923.800
GR	651.540	944.600	651.440	977.800	651.440	1002.100	651.540	1027.500	651.940	1052.800
GR	652.040	1078.700	652.640	1104.200	654.440	1118.900	657.040	1130.600	660.440	1142.100
NB	3.000	.030	190.000	.070	250.500	.050	1043.300	.000	.000	.000
X1	70.000	59.000	.000	190.000	605.000	530.000	570.000	.000	.000	.000
GR	663.870	.000	662.050	2.500	660.750	3.000	656.950	4.500	653.950	7.100
GR	652.150	7.600	650.350	10.600	645.850	17.100	645.350	20.100	644.850	20.400
GR	644.530	22.200	644.200	24.500	643.530	27.000	641.700	45.900	640.000	48.000
GR	640.300	64.900	640.300	74.000	641.100	83.900	642.000	102.900	642.800	121.800
GR	643.300	140.800	643.700	159.800	643.800	178.800	644.100	180.800	644.550	183.600
GR	647.050	190.000	647.350	202.600	646.950	208.600	647.550	221.800	647.850	225.400
GR	649.750	238.700	649.550	244.000	649.150	250.500	651.050	264.600	652.450	285.300
GR	652.450	288.630	652.350	312.500	652.150	338.700	652.050	368.450	651.950	397.400
GR	652.650	429.000	653.550	464.000	653.770	490.520	653.750	517.000	653.250	552.700
GR	653.250	591.600	653.450	604.000	655.450	632.300	655.450	666.900	655.550	705.100
GR	655.750	742.900	656.250	783.200	656.250	822.700	656.550	862.300	656.450	901.300
GR	656.850	939.300	657.650	976.800	658.650	1009.100	659.850	1043.300	.000	.000
NB	3.000	.050	57.300	.030	280.700	.050	1142.900	.000	.000	.000
X1	69.000	67.000	57.300	280.700	910.000	725.000	845.000	.000	.000	.000
X3	.000	.000	.000	.000	.000	315.000	.000	.000	.000	.000
GR	663.100	.000	662.800	1.200	661.700	2.900	661.000	6.200	659.700	8.100
GR	659.600	8.800	662.100	14.300	652.200	18.200	651.700	21.000	650.100	23.300
GR	649.300	53.800	649.300	57.300	646.360	58.340	646.220	58.900	645.500	59.500
GR	645.000	61.800	644.700	62.000	643.600	67.000	643.400	80.000	644.700	81.000
GR	643.100	86.200	642.800	89.000	643.000	94.000	642.600	105.400	642.400	110.000
GR	643.600	124.600	643.500	143.800	643.400	154.000	643.300	163.000	643.300	173.000
GR	643.300	182.200	643.800	201.400	644.400	220.800	644.700	225.800	644.900	229.000
GR	646.000	254.100	646.200	263.100	649.100	280.700	650.200	304.800	651.000	329.800
GR	651.800	363.100	652.900	389.600	652.400	391.000	652.800	392.700	652.600	446.200
GR	652.600	481.000	652.500	517.800	651.200	528.300	652.800	545.700	652.800	558.300
GR	651.500	571.300	652.900	606.600	654.500	622.600	654.400	661.600	654.400	700.400
GR	654.600	739.100	655.200	776.300	655.000	815.100	656.200	852.900	656.000	892.700
GR	655.000	932.400	656.300	970.400	656.400	1009.100	656.600	1045.500	656.200	1084.300
GR	658.400	1121.800	659.500	1142.800	.000	.000	.000	.000	.000	.000



NH	4.000	.050	74.500	.030	279.200	.070	342.210	.040	1172.000	.000
X1	68.000	72.000	74.500	279.200	510.000	415.000	470.000	.000	.000	.000
GR	661.800	.000	660.000	3.200	659.400	4.600	654.700	13.000	653.900	14.400
GR	653.100	17.000	652.300	31.000	651.900	32.500	649.800	48.900	653.700	58.000
GR	652.900	59.300	652.300	61.600	651.100	65.600	650.800	66.700	651.100	66.900
GR	651.600	68.800	652.400	70.700	652.140	74.500	651.800	75.100	649.900	76.600
GR	650.000	77.600	647.900	80.000	646.800	80.400	645.600	81.800	645.100	82.400
GR	644.900	82.900	644.100	86.400	643.700	94.000	644.300	99.000	643.500	102.200
GR	643.800	105.000	642.700	114.000	643.000	118.100	643.100	124.000	642.600	133.900
GR	642.700	149.800	643.100	165.700	643.400	181.500	644.100	197.400	644.600	213.300
GR	644.900	218.300	645.100	221.100	645.800	256.500	646.200	248.700	647.400	279.200
GR	647.300	287.900	649.500	308.100	652.570	342.210	652.600	382.100	652.200	425.600
GR	652.000	468.100	651.800	531.900	651.900	592.400	652.500	699.200	652.800	628.000
GR	652.000	536.200	652.600	649.100	651.700	667.400	655.500	693.200	655.400	734.800
GR	655.600	779.300	655.700	816.500	655.700	854.400	656.300	893.400	656.300	930.800
GR	656.400	967.800	656.400	1004.700	656.600	1042.000	657.300	1080.200	658.600	1116.500
GR	659.300	1131.400	661.100	1172.000	.000	.000	.000	.000	.000	.000

NH	3.000	.050	29.700	.030	269.700	.040	1052.700	.000	.000	.000
X1	67.000	64.000	29.700	269.700	825.000	775.000	810.000	.000	.000	.000
X3	.000	.000	.000	.000	.000	298.000	.000	.000	.000	.000
GR	661.400	.000	655.400	5.400	656.900	9.100	657.200	8.500	657.400	14.300
GR	656.100	22.800	657.340	28.260	657.300	29.700	656.100	29.800	655.800	31.600
GR	655.000	33.300	655.300	34.400	653.600	36.400	653.900	38.200	653.300	39.600
GR	652.200	41.100	649.600	44.600	647.600	46.800	648.100	49.200	645.900	52.600
GR	645.300	53.000	645.100	55.100	644.400	56.600	642.100	75.600	641.800	82.000
GR	642.600	94.600	642.400	103.000	642.200	113.600	642.800	113.600	642.000	120.000
GR	644.000	126.000	643.300	132.800	642.900	137.000	643.700	153.600	644.400	160.900
GR	644.300	170.600	643.200	179.000	643.600	189.600	644.700	208.700	645.100	210.700
GR	649.000	255.400	649.800	269.700	649.700	284.300	651.400	300.900	652.580	331.800
GR	652.000	373.700	652.900	415.100	652.000	425.200	653.500	439.100	653.700	469.700
GR	652.400	468.100	653.400	531.900	653.400	603.800	653.200	699.200	653.700	738.000
GR	653.800	684.300	653.600	725.200	653.500	765.500	653.500	826.000	650.800	883.500
GR	650.900	877.700	650.300	930.300	650.000	995.900	664.300	1052.700	.000	.000

2- 4-91 15:49:24

PAGE 7

NH	4.000	.050	30.300	.030	245.800	.070	338.700	.040	655.800	.000
X1	66.000	41.000	30.300	245.800	715.000	445.000	665.000	.000	.000	.000
GR	657.040	65.000	654.640	6.700	654.840	10.000	652.840	20.700	653.200	25.000
GR	652.240	27.600	652.740	30.300	652.030	32.700	650.740	37.000	647.940	40.500
GR	646.340	44.400	645.420	48.600	644.920	49.600	644.720	72.000	643.320	92.700
GR	644.420	113.000	643.620	135.900	644.820	179.000	644.820	222.200	645.200	227.700
GR	646.400	245.800	646.630	262.100	647.350	277.600	648.500	284.600	648.600	310.100
GR	647.730	312.600	649.930	334.500	649.530	324.300	653.680	329.300	647.250	338.000
GR	650.140	346.400	650.600	358.200	653.040	370.930	648.080	392.000	652.830	412.900
GR	653.680	444.000	654.030	477.600	654.160	528.800	653.980	578.400	653.650	612.500
GR	653.830	655.800	.000	.000	.000	.000	.000	.000	.000	.000

NH	5.000	.040	304.280	.070	331.700	.030	513.600	.070	561.300	.040
X1	1061.700	.000	.000	.000	.000	.000	.000	.000	.000	.000
X3	.000	.000	331.700	513.600	310.000	355.000	325.000	.000	.000	.000
GR	657.910	.000	658.870	58.900	654.310	70.000	.000	.000	.000	.000
GR	650.900	308.200	648.230	319.200	648.950	326.600	648.840	331.700	646.510	340.000
GR	645.780	342.600	645.380	345.100	645.380	361.200	644.580	372.200	644.580	399.200
GR	644.380	426.300	644.180	432.000	644.180	441.000	644.480	453.400	644.280	475.000
GR	644.080	480.500	643.880	485.000	645.680	507.600	646.470	513.600	646.680	526.900
GR	647.930	535.800	648.490	547.200	648.390	573.700	649.040	561.300	650.420	598.580
GR	650.620	656.600	650.780	680.900	651.720	706.500	652.630	727.200	652.970	784.100
GR	653.020	807.700	653.020	851.600	652.610	898.600	652.570	943.000	652.670	982.800
GR	650.800	994.700	650.480	1021.700	650.910	1038.100	653.480	1053.900	657.560	1061.700

NH	4.000	.040	376.100	.070	442.600	.030	617.800	.050	649.600	.000
X1	64.000	38.000	442.600	617.800	810.000	1000.000	940.000	.000	.000	.000
X3	.000	.000	.000	345.000	.000	.000	.000	.000	.000	.000
GR	655.730	.000	655.230	130.300	654.030	247.000	653.130	306.900	652.630	347.900
GR	652.530	362.400	652.430	365.800	651.030	376.100	650.030	390.400	649.130	408.300
GR	648.630	422.400	648.430	434.500	648.930	442.800	648.630	448.600	647.200	454.000
GR	646.050	467.900	645.550	472.400	645.050	488.400	645.850	504.300	644.750	520.200
GR	644.050	536.200	642.950	552.100	642.150	568.100	642.550	578.000	642.550	581.000
GR	642.350	584.000	645.050	596.000	645.050	600.000	646.050	604.000	647.030	605.100
GR	648.230	607.000	650.330	608.300	656.630	616.400	659.430	617.800	660.330	629.100
GR	661.930	639.100	663.830	642.500	669.330	649.600	.000	.000	.000	.000

2- 4-91 15:49:24

PAGE 8

NH	4.000	.040	936.600	.070	998.500	.030	1157.600	.050	1162.600	.000
X1	63.000	46.000	998.500	1157.600	575.000	775.000	705.000	.000	.000	.000
X3	.000	.000	.000	863.000	.000	.000	.000	.000	.000	.000
GR	658.420	.000	656.100	17.200	655.400	57.600	655.400	109.860	655.600	122.500
GR	655.540	183.200	655.700	236.500	655.700	287.100	655.800	326.500	655.500	355.000
GR	655.600	467.300	654.970	478.360	654.830	579.200	654.630	673.470	654.300	763.400
GR	653.300	815.280	652.540	868.830	649.500	936.600	648.700	960.700	648.900	985.100
GR	647.500	988.300	647.400	998.500	646.270	1025.300	645.770	1028.300	645.670	1035.000
GR	644.770	1042.700	644.570	1057.200	643.270	1064.000	643.270	1070.600	643.370	1074.000
GR	642.970	1077.000	643.470	1080.000	643.170	1086.100	643.170	1092.000	643.270	1098.000
GR	645.770	1100.500	644.770	1105.000	644.770	1115.000	644.970	1118.000	644.770	1129.500
GR	644.370	1137.000	644.570	1144.000	646.270	1148.530	647.400	1149.900	654.200	1157.600
GR	662.100	1162.600	.000	.000	.000	.000	.000	.000	.000	.000

NH	4.000	.040	466.700	.070	488.300	.030	687.100	.050	759.600	.000
X1	62.000	36.000	488.300	687.100	570.000	825.000	730.000	.000	.000	.000
X3	.000	.000	.000	420.000	.000	.000	.000	.000	.000	.000
GR	656.360	.000	655.760	133.200	655.760	205.700	655.660	284.100	654.860	348.000
GR	653.460	415.000	652.260	466.700	651.600	551.900	645.800	476.200	650.500	477.300
GR	649.760	483.900	650.060	488.300	649.060	488.800	647.860	491.300	646.850	495.300
GR	646.100	497.300	645.850	519.200	645.650	541.100	645.850	563.000	645.550	573.000
GR	645.500	584.900	646.100	606.800	646.050	628.800	645.950	650.700	645.850	672.600
GR	646.850	676.600	647.860	681.000	649.960	687.100	649.960	693.800	651.660	697.800
GR	652.960	703.800	656.060	713.000	655.860	718.700	662.960	728.600	664.960	737.900
GR	666.060	759.600	.000	.000	.000	.000	.000	.000	.000	.000

NH	5.000	.040	438.600	.100	478.000	.030	718.100	.050	742.000	.040
NH	971.500	.000	.000	.000	.000	.000	.000	.000	.000	.000
X1	61.000	45.000	478.000	718.100	470.000	540.000	505.000	.000	.000	.000
X3	.000	.000	.000	396.000	.000	750.000	.000	.000	.000	.000
GR	655.550	.000	655.650	49.600	655.650	93.800	655.850	135.000	655.950	186.000
GR	656.050	228.600	656.350	265.400	656.150	312.300	656.150	343.200	655.800	





GR	647.060	686.100	647.460	692.500	648.340	698.100	649.260	702.000	648.430	706.600
GR	648.630	714.700	649.900	718.100	649.890	726.200	650.010	734.000	649.580	742.000
GR	652.440	753.000	654.510	758.100	654.610	760.340	654.820	765.100	654.770	806.800

1

2- 4-91 15:49:24

PAGE 9

GR	654.330	847.300	654.460	860.900	657.080	893.200	661.890	945.700	663.360	971.500
NH	4.000	.050	12.800	.030	269.800	.070	321.200	.040	953.600	.000
X1	60.000	44.000	12.800	269.800	570.000	570.000	570.000	.000	.000	.000
GR	691.120	.000	649.090	51.200	666.750	58.600	659.660	59.600	655.330	76.000
GR	671.390	.000	660.920	7.200	658.120	11.800	653.120	12.800	648.920	19.100
GR	648.240	21.000	647.640	23.500	647.540	29.500	646.940	31.500	646.940	43.600
GR	646.540	63.700	646.340	83.800	646.740	103.900	646.840	124.000	646.940	144.100
GR	647.390	164.200	647.740	179.000	647.540	184.300	648.240	192.300	649.090	226.600
GR	649.450	226.600	648.990	234.400	649.360	244.600	648.990	249.300	649.350	251.900
GR	649.330	255.200	649.920	256.800	650.630	269.800	650.210	280.500	650.540	285.500
GR	649.400	292.600	650.450	298.300	649.940	309.900	650.430	313.200	650.070	321.200
GR	655.630	334.100	655.600	381.380	655.830	393.500	656.030	465.800	656.630	551.500
GR	656.430	653.000	656.430	744.900	656.630	831.000	660.830	953.600	.000	.000
NH	4.000	.050	87.300	.030	264.700	.070	314.700	.040	883.800	.000
X1	59.000	50.000	87.300	264.700	470.000	460.000	470.000	.000	.000	.000
GR	691.120	.000	649.090	51.200	666.750	58.600	659.660	59.600	655.330	76.000
GR	653.890	77.800	653.110	84.800	650.740	87.300	649.270	89.900	648.270	90.900
GR	647.670	92.900	647.370	98.000	645.970	105.000	645.870	112.500	644.570	127.000
GR	645.270	132.100	647.020	142.000	647.170	151.600	646.870	155.000	645.870	161.000
GR	645.470	166.000	645.570	171.200	646.770	190.800	647.170	196.000	647.170	205.000
GR	646.870	214.400	647.270	230.000	647.670	245.000	647.670	249.600	648.270	256.600
GR	649.260	258.400	650.060	261.400	651.060	264.700	651.660	279.800	651.160	283.300
GR	651.260	293.700	650.760	314.700	651.860	329.700	653.460	376.000	655.560	388.300
GR	655.960	448.000	655.560	490.000	655.760	538.100	655.960	608.200	656.460	674.100
GR	656.960	722.000	657.260	779.700	656.760	823.600	657.360	850.500	657.060	883.800
NH	4.000	.050	199.800	.030	371.500	.070	400.000	.040	1490.800	.000
X1	58.000	48.000	199.800	371.500	1025.000	750.000	950.000	.000	.000	.000
X3	.000	.000	.000	.000	.000	500.000	.000	.000	.000	.000
GR	705.820	.000	661.730	199.800	650.260	208.000	649.380	209.800	648.280	211.800
GR	647.680	213.800	647.530	227.000	647.480	236.700	645.880	251.000	647.290	273.300
GR	646.280	267.000	645.030	274.000	645.280	282.400	646.280	315.300	646.580	335.000
GR	646.580	351.100	648.280	355.600	649.370	359.100	649.750	360.900	650.630	367.000
GR	651.630	371.500	650.930	383.300	651.280	386.400	651.430	393.600	652.850	400.000
GR	652.470	429.600	652.830	471.800	654.210	499.500	655.510	518.100	656.110	543.000
GR	655.410	458.500	655.510	479.200	656.210	506.200	657.910	539.600	658.710	572.000
GR	657.610	906.300	657.310	958.000	657.410	1032.640	657.810	1109.740	657.810	1157.000
GR	658.110	1208.100	657.910	1262.800	656.410	1302.100	656.310	1346.600	656.710	1394.900

1

2- 4-91 15:49:24

PAGE 10

GR	657.110	1429.900	658.010	1442.500	661.510	1490.800	.000	.000	.000	.000
NH	4.000	.050	101.100	.030	307.000	.070	327.300	.040	835.500	.000
X1	57.000	33.000	101.100	307.000	360.000	215.000	310.000	.000	.000	.000
X3	.000	.000	.000	.000	.000	410.000	.000	.000	.000	.000
GR	700.550	.000	659.300	86.600	654.900	101.100	650.600	104.400	649.300	107.300
GR	648.290	112.300	647.490	114.800	647.490	124.800	646.590	136.600	648.290	158.400
GR	647.090	173.000	647.390	223.700	647.490	245.500	647.390	267.300	647.290	281.300
GR	647.690	289.100	648.290	295.100	649.300	297.300	651.000	307.000	652.400	327.300
GR	652.800	337.200	652.900	351.800	652.500	374.200	655.100	443.600	654.900	502.800
GR	656.100	551.600	656.500	600.300	656.900	641.600	656.800	663.600	656.800	717.300
GR	657.300	764.100	657.100	814.000	657.500	835.500	.000	.000	.000	.000
NH	4.000	.050	397.500	.070	454.600	.030	685.700	.050	695.080	.000
X1	56.000	42.000	394.600	685.700	1020.000	890.000	960.000	.000	.000	.000
X3	.000	.000	.000	390.000	.000	.000	.000	.000	.000	.000
GR	663.800	.000	663.030	47.300	661.330	95.600	661.530	158.700	659.630	183.300
GR	660.030	191.200	659.230	219.200	658.830	234.800	658.830	259.800	659.230	273.300
GR	658.530	309.800	660.030	337.400	658.230	365.900	658.930	390.700	654.940	397.500
GR	653.780	420.200	652.580	428.600	651.680	443.800	651.780	454.600	649.910	485.900
GR	649.780	489.900	648.900	522.900	648.500	537.900	647.700	554.100	647.400	570.400
GR	647.100	575.000	647.400	586.600	647.400	602.900	647.800	612.000	647.500	619.100
GR	647.800	635.400	648.100	647.000	647.600	651.600	647.700	661.000	648.100	667.000
GR	649.000	672.400	649.880	677.800	661.680	685.700	664.480	693.500	664.390	695.050
GR	664.400	695.060	664.400	695.080	.000	.000	.000	.000	.000	.000
NH	5.000	.040	155.250	.050	428.100	.030	600.300	.070	695.000	.030
NH	901.300	.000	.000	.000	.000	.000	.000	.000	.000	.000
X1	55.000	48.000	428.100	901.300	665.000	915.000	885.000	.000	.000	.000
X3	.000	.000	.000	300.000	.000	.000	.000	.000	.000	.000
GR	657.400	.000	656.830	51.450	656.840	112.650	655.350	155.250	655.130	160.850
GR	655.110	186.700	655.640	208.370	655.050	231.150	655.350	259.810	655.300	263.250
GR	654.610	292.810	654.710	326.300	653.980	357.040	654.430	386.700	655.010	397.390
GR	655.000	403.680	653.290	410.010	652.890	428.100	650.590	430.370	649.520	431.700
GR	649.320	432.700	648.870	439.700	648.870	447.000	649.320	454.300	649.520	458.300
GR	649.520	492.500	649.820	516.700	650.020	551.200	650.720	581.000	651.120	600.300
GR	659.520	532.000	650.720	550.700	650.720	578.900	649.920	595.000	649.920	600.300
GR	649.320	733.200	648.920	737.200	647.920	749.800	647.420	762.400	647.720	769.400
GR	647.520	775.000	648.020	787.600	647.420	800.200	647.220	804.000	647.620	812.800

1

2- 4-91 15:49:24

PAGE 11

GR	648.820	825.500	649.320	830.500	715.400	901.300	.000	.000	.000	.000
NH	5.000	.040	457.500	.050	612.500	.070	683.300	.030	822.700	.050
NH	836.700	.000	.000	.000	.000	.000	.000	.000	.000	.000
X1	54.000	43.000	683.300	822.700	520.000	885.000	835.000	.000	.000	.000
X3	.000	.000	.000	588.600	.000	.000	.000	.000	.000	.000
GR	658.570	.000	658.570	56.500	656.870	86.500	657.370	183.200	657.490	234.100
GR	657.470	300.000	647.570	347.400	657.470	424.400	657.670	457.500	656.370	495.500
GR	656.670	533.100	655.370	577.100	655.810	588.600	654.470	605.500	653.970	619.900
GR	652.670	631.700	650.770	639.500	650.770	648.800	652.170	652.300	652.370	658.500
GR	651.970	669.200	652.470	683.300	650.770	689.400	649.850	697.900	649.450	700.400
GR	648.150	713.600	647.100	726.900	646.450	740.100	645.650	753.400		



GR	649.110	452.000	648.860	472.100	649.960	482.200	648.660	512.200	649.610	532.700
GR	650.010	538.200	651.000	551.500	652.350	555.600	652.850	562.000	653.450	565.700
GR	654.950	572.800	654.750	594.000	655.950	611.000	655.950	617.000	655.850	628.700
GR	654.550	604.400	653.050	640.000	652.450	649.200	652.250	661.600	651.650	672.500
GR	654.700	654.300	654.820	757.420	655.920	800.720	655.820	875.120	657.320	929.420
GR	658.150	979.620	672.760	999.600	673.850	1004.190	679.400	1010.520	680.370	1014.020
GR	694.430	1082.430	.000	.000	.000	.000	.000	.000	.000	.000
NH	6.000	.040	314.100	.030	541.700	.070	573.900	.030	627.200	.150
NH	729.900	.050	1019.400	.000	.000	.000	.000	.000	.000	.000
X1	52.000	52.000	314.100	627.200	640.000	760.000	665.000	.000	.000	.000
X3	.000	.000	.000	.000	.000	736.000	.000	.000	.000	.000
GR	659.060	.000	658.860	102.400	659.260	171.800	659.060	224.900	659.260	276.500
GR	659.360	306.800	659.360	357.800	659.460	320.300	659.460	320.300	659.460	357.800
GR	653.160	334.300	651.760	338.800	650.890	366.200	650.490	370.200	650.190	384.800

1 2- 4-91 15:49:24 PAGE 12

GR	649.890	399.400	649.690	414.000	649.540	428.600	649.190	443.200	649.490	457.800
GR	650.140	497.000	650.890	503.000	652.290	526.600	653.800	541.700	652.790	547.700
GR	653.490	550.200	652.990	563.600	652.390	573.900	650.890	590.100	650.090	596.900
GR	649.990	615.800	650.890	621.000	651.760	622.200	652.660	624.900	656.160	627.200
GR	657.060	630.400	656.760	630.900	653.860	647.200	655.760	644.700	655.860	644.200
GR	656.240	713.600	656.560	729.900	656.860	743.700	656.460	774.800	658.360	788.800
GR	657.860	803.800	657.760	869.900	657.860	908.600	657.360	965.800	657.560	984.000
GR	657.560	1015.800	657.860	1089.400	.000	.000	.000	.000	.000	.000
NH	4.000	.050	31.500	.030	233.100	.150	388.900	.050	1955.900	.000
X1	51.000	66.000	31.500	233.100	1000.000	780.000	915.000	.000	.000	.000
X3	10.000	.000	.000	.000	.000	400.000	.000	.000	.000	.000
GR	671.880	.000	655.600	22.000	654.100	31.500	652.700	36.300	651.800	37.700
GR	650.900	39.700	650.900	52.000	650.600	65.400	650.800	74.800	650.800	81.000
GR	649.800	92.300	649.400	109.900	649.400	127.500	649.600	145.000	650.200	162.600
GR	650.200	180.100	651.200	197.700	651.300	215.300	651.800	220.300	652.600	223.000
GR	653.300	233.100	653.300	240.100	655.100	298.600	655.300	302.300	655.200	307.200
GR	654.500	318.200	653.700	327.200	655.500	346.100	655.780	388.900	657.400	416.600
GR	658.110	472.900	659.100	501.800	658.800	544.100	658.370	596.300	658.100	636.900
GR	658.870	682.800	659.910	756.090	658.900	764.700	658.800	772.200	658.100	774.900
GR	659.000	777.400	658.500	782.900	658.200	863.900	658.600	992.900	659.200	1004.800
GR	658.600	1006.900	659.200	1008.000	658.800	1012.300	658.600	1064.300	658.300	1138.500
GR	658.600	1245.200	659.000	1344.500	659.300	1370.100	658.700	1373.000	659.300	1374.300
GR	658.800	1379.000	658.600	1431.100	658.600	1521.200	658.500	1608.500	659.000	1611.900
GR	658.600	1613.700	658.500	1644.000	658.800	1652.400	659.500	1736.700	666.100	1920.200
GR	667.800	1955.900	.000	.000	.000	.000	.000	.000	.000	.000
NH	4.000	.050	31.800	.030	235.500	.150	415.900	.050	2061.000	.000
X1	50.000	80.000	31.800	235.500	175.000	120.000	155.000	.000	.000	.000
X3	10.000	.000	.000	.000	.000	415.000	.000	.000	.000	.000
GR	672.950	.000	672.850	3.200	655.910	31.800	653.910	39.100	652.610	41.700
GR	651.850	43.200	651.400	45.700	650.000	72.600	650.000	89.000	649.300	99.500
GR	649.400	126.500	650.000	126.500	650.600	150.300	650.300	167.300	651.850	177.300
GR	652.510	227.300	652.510	230.400	653.100	235.500	653.210	246.800	653.800	269.800
GR	653.710	293.900	654.410	299.600	654.910	303.400	655.410	308.300	655.810	319.600
GR	655.970	319.700	655.420	348.800	655.330	362.200	655.870	384.360	656.390	415.900
GR	656.100	468.600	658.790	482.600	659.400	535.300	659.300	634.500	659.700	698.600
GR	659.900	753.700	659.000	759.700	659.100	766.000	658.700	767.600	659.900	769.700
GR	658.600	776.100	658.100	803.700	655.200	842.600	658.700	915.800	659.200	920.000

1 2- 4-91 15:49:24 PAGE 13

GR	658.600	921.100	659.200	922.000	658.800	923.900	658.600	1034.700	658.300	1118.700
GR	658.200	1231.100	658.700	1233.900	658.400	1235.400	658.700	1236.400	658.400	1239.100
GR	658.200	1241.000	658.600	1242.000	658.400	1242.900	657.900	1234.500	658.100	1341.500
GR	658.400	1342.500	657.900	1343.500	658.300	1344.300	658.000	1345.900	658.300	1451.600
GR	659.200	1566.100	658.700	1566.900	659.200	1568.200	659.000	1570.000	659.300	1577.400
GR	659.200	1592.200	659.600	1637.200	660.500	1773.300	663.700	1789.200	663.300	1795.800
GR	663.900	1812.600	664.500	1845.300	664.200	1848.400	663.400	1921.300	665.500	2061.000
NH	4.000	.050	25.400	.030	197.500	.150	357.200	.040	395.450	.000
X1	49.000	41.000	25.000	197.000	275.000	485.000	610.000	.000	548.000	.000
GR	672.110	.000	666.300	8.700	658.300	13.000	654.200	25.400	652.900	30.000
GR	651.940	32.200	651.400	33.700	650.200	44.000	649.600	63.400	649.200	93.000
GR	648.900	113.000	649.000	122.700	650.100	152.400	651.500	182.100	651.940	189.100
GR	653.000	195.200	654.200	197.500	654.300	206.300	654.700	228.000	655.000	235.400
GR	654.600	227.100	654.600	238.300	654.600	242.300	655.400	257.700	656.100	261.700
GR	655.200	271.300	655.000	279.800	656.200	293.900	656.840	302.100	657.300	311.300
GR	656.700	321.100	656.800	333.500	657.000	340.900	657.000	347.900	657.600	355.400
GR	659.000	357.200	659.100	367.100	657.900	371.700	657.800	383.900	660.700	393.700
GR	660.760	395.450	.000	.000	.000	.000	.000	.000	.000	.000
NH	3.000	.150	585.400	.030	850.700	.150	938.800	.000	.000	.000
X1	48.000	32.000	585.400	850.700	1025.000	830.000	965.000	.000	.000	.000
X3	.000	.000	.000	340.000	.000	.000	.000	.000	.000	.000
GR	665.000	.000	660.000	25.000	657.000	45.000	657.000	85.000	658.000	290.000
GR	657.000	400.000	656.200	456.000	656.000	456.000	656.140	529.400	656.940	548.000
GR	654.840	585.400	652.900	592.500	652.760	595.200	652.200	599.200	651.900	629.000
GR	652.100	645.000	651.900	654.000	652.000	658.700	652.100	688.500	651.600	718.300
GR	652.200	748.100	651.800	777.900	652.100	807.700	651.800	837.500	652.760	842.500
GR	654.660	850.700	654.960	859.700	656.060	873.900	658.160	882.500	660.460	896.500
GR	660.800	905.900	661.960	938.800	.000	.000	.000	.000	.000	.000
NH	3.000	.150	956.100	.030	1220.200	.050	1263.100	.000	.000	.000
X1	47.000	42.000	956.100	1220.200	430.000	695.000	650.000	.000	.000	.000
X3	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
GR	665.000	.000	658.000	20.000	658.000	110.000	658.000	520.000	658.000	570.000
GR	658.000	645.000	657.000	820.000	655.650	843.000	655.570	851.000	656.200	863.500
GR	655.380	878.700	654.670	880.600	654.670	882.700	656.160	888.600	655.800	909.600
GR	655.100	917.200	655.900	919.800	656.100	937.900	654.900	941.800	655.600	950.100
GR	655.400	956.100	653.600	958.900	653.720	962.600	653.560	968.800	653.260	981.400

1 2- 4-91 15:49:24 PAGE 14

GR	653.200	983.400	651.900	1021.300	652.600	1059.200	652.400	1097.100	652.400	1114.000
GR	652.100	1135.000	651.400	1162.000	652.100	1172.900	652.700	1185.000	652.300	1198.000
GR	653.200	1210.800	653.560	1214.800	654.350	1216.500	654.940	1217.100	664.650	1220.200
GR	664.860	1226.000	666.320	1263.100	.000	.000	.000	.000	.000	.000
NH	3.000	.150	1065.200	.030	1176.000	.050	1248.600	.000	.000	.000
X1	46.000	44.000	1065.200	1176.000	165.300	505.000	445.000	.000	.000	.000
X3	.000	.000	.000	600.000	.000	.000	.000	.000	.000	.000
GR	660.000	.000	658.000	30.000	658.000	75.000	659.000	180.000	659.000	400.000
GR	659.000	495.000	658.000	660.200	658.000	750.000	657.000	785.000	656.000	865.000
GR	656.000	950.000	656.500	1016.900	655.800	1037.500	654.200	1040.200	655.800	1056.200
GR	655.400	1065.200	654.500	1067.700	654.210	1072.100	654.200	1073.200	653.920	1075.000





GR	653.500	1081.500	653.000	1084.500	651.600	1098.700	649.100	1112.800	646.300	1127.000
GR	645.300	1141.200	645.300	1144.000	646.100	1146.000	646.100	1148.000	646.100	1155.400
GR	650.000	1169.600	653.500	1174.600	654.200	1175.900	654.700	1176.000	654.300	1187.600
GR	654.600	1189.300	653.500	1189.200	653.700	1190.600	653.700	1191.600	653.700	1200.400
GR	654.200	1208.200	653.500	1215.600	660.400	1229.100	679.700	1248.600	-	0.000
NR	-	150	1013.700	-	1317.400	0.000	1363.800	-	0.000	0.000
X1	45.000	53.000	1011.700	1317.400	145.000	430.000	305.000	-	-3.000	0.000
X3	-	0.000	-	630.000	-	0.000	-	0.000	-	0.000
GR	663.000	-	662.000	20.000	662.000	60.000	663.000	100.000	663.000	300.000
GR	662.000	500.000	662.000	600.000	661.000	661.000	661.000	661.000	661.000	661.000
GR	661.659	700.000	661.659	661.420	661.420	787.300	659.150	825.000	657.910	867.100
GR	659.870	875.900	659.430	889.300	659.360	895.200	659.580	900.000	659.000	922.200
GR	659.500	931.900	658.500	942.000	658.800	959.200	657.900	973.100	658.100	994.500
GR	657.700	1011.700	658.500	1022.400	658.700	1038.250	658.700	1049.800	658.500	1059.500
GR	655.700	1062.000	658.000	1072.100	655.000	1100.100	654.800	1128.100	655.800	1156.100
GR	656.200	1184.100	656.700	1214.100	656.770	1224.600	656.470	1259.400	655.800	1266.400
GR	655.800	1277.100	655.900	1287.800	656.100	1298.500	655.300	1304.000	655.500	1309.200
GR	656.300	1316.300	656.220	1319.600	656.170	1327.400	656.100	1330.600	656.100	1341.400
GR	662.640	1350.400	667.250	1368.200	671.530	1363.800	-	0.000	-	0.000
NR	4.000	150	684.700	-	828.900	0.000	1100.800	150	1293.200	-
X1	44.000	63.000	684.700	828.900	355.000	900.000	695.000	-	0.000	0.000
X3	-	0.000	-	450.000	-	0.000	1210.000	-	0.000	0.000
GR	661.000	-	661.000	10.000	661.000	20.000	660.000	350.000	659.000	470.000
GR	659.000	540.000	657.000	656.000	656.340	691.000	670.000	655.000	653.000	672.000
GR	655.940	577.700	655.920	664.700	654.440	691.300	653.540	697.300	650.900	716.000

2- 4-91 15:49:24

PAGE 15

GR	650.200	737.800	649.700	758.800	649.600	776.000	649.700	779.700	650.500	800.600
GR	651.900	821.600	653.510	825.600	654.940	827.900	656.440	828.900	656.640	833.700
GR	657.440	841.900	657.840	850.700	657.740	858.900	657.740	869.300	657.240	872.800
GR	658.840	878.200	660.340	880.500	660.340	885.000	660.340	915.600	660.440	926.600
GR	660.140	905.800	660.640	906.400	660.640	908.600	660.640	914.640	660.640	914.640
GR	659.740	1034.000	659.740	1049.600	660.240	1059.540	657.640	1071.400	656.740	1076.000
GR	656.440	1100.800	657.440	1119.100	657.140	1141.900	656.040	1146.200	655.240	1150.600
GR	656.640	1161.100	656.640	1170.700	656.640	1184.700	656.600	1184.750	656.440	1187.200
GR	655.440	1189.900	655.740	1192.000	659.800	1200.300	660.400	1206.020	660.800	1247.000
GR	660.600	1276.700	660.600	1284.500	660.580	1293.200	660.000	1293.200	660.000	1293.200
NR	4.000	.150	257.500	.030	488.500	.150	599.600	.200	1510.900	.000
X1	43.000	55.000	257.500	488.500	395.000	425.000	410.000	.000	.000	.000
K3	.000	.000	.000	176.000	.000	650.000	.000	.000	.000	.000
GR	661.000	661.000	661.000	661.000	661.000	660.000	660.000	150.000	659.000	180.000
GR	658.000	210.000	657.650	217.800	657.650	227.500	657.650	234.200	656.550	246.700
GR	656.350	252.400	656.350	255.400	656.470	257.500	654.750	263.200	654.270	264.600
GR	653.600	267.100	653.700	285.000	653.900	291.000	653.500	301.400	653.400	335.700
GR	653.900	370.000	653.200	403.000	653.000	428.000	653.000	477.000	654.750	475.000
GR	654.450	777.100	656.550	482.500	657.050	488.500	656.350	491.800	657.450	496.400
GR	657.650	515.400	658.320	528.800	658.550	550.000	658.600	569.600	658.100	599.600
GR	657.700	606.400	658.000	611.900	658.600	633.000	660.200	673.600	660.700	739.700
GR	660.800	763.000	660.830	855.400	660.820	963.600	661.700	1033.000	661.810	1177.500
GR	662.170	1262.800	661.710	1357.600	661.620	1438.000	661.600	1438.000	661.600	1438.000
GR	661.650	1394.600	661.650	1411.200	661.850	1438.000	661.660	1468.900	661.360	1510.200

4.000 .04

.000

GR	666.880	.000	661.450	7.670	660.780	30.000	660.580	45.200	660.510	47.600
GR	660.380	54.200	655.280	61.800	654.530	64.600	653.700	66.600	653.200	75.000
GR	653.100	80.000	651.300	92.300	651.000	118.100	651.500	140.900	652.300	169.700
GR	653.400	198.500	653.100	208.000	654.000	221.300	654.530	226.300	655.180	232.000
GR	656.380	230.200	656.480	235.700	658.180	244.800	657.580	254.400	657.780	261.600
GR	659.180	264.300	659.250	266.700	659.080	270.300	656.980	273.800	656.850	280.690
GR	658.080	305.200	658.780	310.900	658.880	312.500	658.980	318.800	658.880	325.400
GR	658.900	327.500	659.280	337.800	659.180	347.800	659.080	358.900	659.380	369.300
GR	661.140	724.000	661.270	1033.730	661.800	1075.700	662.000	1123.500	662.000	1161.600
GR	662.000	1207.500	662.000	1242.200	661.900	1306.200	661.800	1345.900	662.100	1410.900
2 - 4-91 15:49:24										
PAGE										
NH	4.000	.040	29.000	.030	198.100	.100	222.600	.200	863.200	.000
X1	41.000	43.000	29.000	198.100	565.000	430.000	520.000	.000	.000	.000
XJ	.000	.000	.000	.000	.000	220.000	.000	.000	.000	.000
GR	665.750	7.000	661.150	7.000	660.000	21.000	660.400	29.000	660.470	29.000
GR	655.150	37.100	654.520	39.000	654.100	41.000	650.900	59.100	650.600	65.000
GR	650.700	68.000	650.600	71.000	650.700	77.000	651.300	95.400	651.800	100.000
GR	651.200	104.500	651.500	107.500	651.200	109.000	651.300	113.600	651.900	131.800
GR	652.900	159.000	653.400	168.100	653.600	174.000	653.600	186.300	654.520	191.300
GR	655.150	196.900	656.050	198.100	656.650	203.700	656.650	206.400	657.650	210.500
GR	658.250	218.700	660.350	222.600	660.280	229.000	660.550	232.800	660.750	236.300
GR	661.250	690.400	661.350	690.400	661.500	690.400	661.500	696.500	662.050	696.500
GR	662.250	690.400	662.000	765.300	662.450	853.200	.000	.000	.000	.000

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2- 4-91 15:49:24

PAGE 17

NC	.000	.000	.026	.000	.000	.000	.000	.000	.000	.000
X1	38.200	49.000	1.300	261.300	1.000	1.000	1.000	.000	.000	.000





BT	4.000	.000	666.700	666.140	1.300	666.700	664.750	261.300	665.100	662.810
BT	263.380	665.000	664.020	.000	.000	.000	.000	.000	.000	.000
GR	666.140	.000	664.750	1.300	662.200	11.900	655.300	25.000	654.620	27.100
GR	654.200	31.100	653.900	42.700	664.400	42.700	664.400	43.920	653.910	43.920
GR	653.400	54.000	653.200	68.000	653.100	78.200	664.000	78.200	664.000	80.400
GR	653.100	80.400	652.700	86.000	652.700	115.700	663.800	115.700	663.800	114.920
GR	652.700	114.920	653.000	152.200	663.600	152.200	663.600	153.420	653.000	153.420
GR	652.900	171.000	653.200	188.700	663.400	188.700	663.400	189.920	652.900	189.920
GR	652.900	201.000	652.900	216.200	654.620	223.200	655.100	225.200	655.600	225.200
GR	663.100	223.900	663.100	227.120	655.600	227.120	658.100	230.300	658.700	231.200
GR	658.900	232.900	658.900	235.800	658.800	236.800	658.500	239.700	658.500	244.000
GR	658.500	248.700	662.200	259.100	662.810	261.300	664.020	265.580	.000	.000
X1	30.100	49.000	5.200	261.100	22.000	22.000	22.000	.000	.000	.000
BT	5.000	.000	664.750	664.770	4.200	664.650	664.750	261.100	665.100	662.810
BT	267.100	665.050	664.260	270.510	665.000	664.380	.000	.000	.000	.000
GR	665.770	.000	664.750	5.200	662.160	11.500	655.360	25.900	654.680	27.400
GR	654.100	29.400	653.800	38.200	653.700	42.000	664.350	42.000	664.350	43.220
GR	653.700	43.220	653.000	74.700	652.400	80.000	664.000	80.000	664.000	81.220
GR	652.800	81.220	654.700	111.200	654.400	117.000	663.800	117.000	663.800	118.220
GR	654.400	118.220	653.000	147.700	653.000	155.000	663.600	155.000	663.600	156.220
GR	653.000	156.220	653.100	184.200	653.100	190.000	663.400	190.000	663.400	191.220
GR	653.100	191.220	653.200	220.600	654.680	221.600	655.260	222.800	655.960	223.900
GR	663.100	223.900	663.100	225.120	655.960	225.120	657.760	229.100	658.960	230.800
GR	658.960	231.700	658.960	234.600	658.160	239.300	658.160	243.900	658.160	248.600
GR	660.860	255.700	662.810	261.100	664.260	267.100	664.380	270.510	.000	.000
NC	.000	.000	.030	.000	.000	.000	.000	.000	.000	.000
X1	37.300	27.000	5.200	261.100	1.000	1.000	1.000	.000	.000	.000
X3	10.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
GR	665.770	.000	664.460	5.200	662.160	11.500	655.360	25.900	654.680	27.400
GR	654.100	29.400	653.800	38.200	653.000	74.700	652.800	80.000	654.700	111.200
GR	653.000	147.700	653.100	184.200	653.200	220.600	654.680	221.600	655.260	223.900
GR	655.960	223.500	655.960	225.120	658.160	230.700	658.960	231.700	658.960	234.600
GR	658.160	239.300	658.160	243.900	658.160	248.600	658.960	255.700	662.960	261.100
GR	664.260	267.100	664.380	270.510	.000	.000	.000	.000	.000	.000

1  
2- 4-91 15:49:24

PAGE 18

NE	4.000	.040	186.000	.150	240.000	.030	458.700	.040	476.700	.000
X1	36.000	45.000	240.700	458.700	105.000	95.000	95.000	.000	.000	.000
GR	667.400	.000	664.600	11.600	666.100	30.100	666.400	40.100	666.000	49.800
GR	664.900	74.800	664.600	82.700	663.900	96.800	662.900	108.700	662.700	133.600
GR	662.200	162.000	662.300	174.700	662.330	176.000	661.800	186.000	656.800	194.400
GR	656.800	202.000	656.700	211.200	657.700	220.900	657.500	240.000	656.700	246.000
GR	656.400	247.600	655.200	254.700	654.700	252.800	654.700	257.900	657.900	277.800
GR	653.200	297.300	652.900	306.300	652.900	317.000	652.300	336.700	652.400	346.800
GR	652.700	356.400	653.100	376.100	653.100	395.800	653.200	415.500	653.300	425.000
GR	653.700	435.200	654.000	444.800	654.720	446.770	655.160	448.700	655.660	450.000
GR	659.060	458.700	659.060	459.900	659.060	462.700	658.460	467.400	658.160	476.700
NC	.050	.050	.030	.000	.000	.000	.000	.000	.000	.000
X1	35.000	50.000	.000	310.250	105.000	95.000	95.000	.000	.000	.000
X3	10.000	.000	.000	.000	.000	.000	.000	665.700	665.700	.000
GR	664.200	.000	661.500	5.000	661.130	.000	.000	12.800	659.600	15.600
GR	659.400	20.000	659.500	27.100	660.400	33.700	659.800	37.900	657.800	43.000
GR	657.500	60.800	657.400	72.900	657.900	76.800	657.000	79.600	655.400	83.200
GR	654.800	84.650	654.000	86.650	653.800	93.600	654.000	97.800	653.800	100.600
GR	653.900	103.400	653.600	110.400	654.000	114.600	653.300	117.500	653.000	137.900
GR	651.900	146.300	652.100	148.700	651.600	150.600	651.600	155.800	651.800	159.100
GR	652.100	171.400	653.400	179.200	652.700	183.700	653.100	203.500	653.300	207.800
GR	654.800	216.800	652.900	229.400	653.700	236.600	653.100	240.200	654.000	262.400
GR	654.100	270.800	654.800	275.750	655.300	277.100	659.500	283.700	659.500	286.300
GR	659.600	288.200	659.600	297.500	659.700	301.100	664.370	310.250	664.500	313.400
NC	.000	.000	.027	.000	.000	.000	.000	.000	.000	.000
X1	34.200	75.000	.000	310.250	1.000	1.000	1.000	.000	.000	.000
BT	7.000	.000	665.700	664.400	9.300	665.700	664.400	12.300	667.550	664.400
BT	213.800	667.550	664.400	216.800	665.700	664.400	310.250	665.700	664.400	313.400
GR	665.700	.000	.000	.000	.000	.000	.000	.000	.000	.000
GR	664.400	.000	661.500	5.000	661.130	9.300	664.000	9.300	664.400	12.300
GR	661.130	12.300	660.800	12.800	659.600	15.600	659.400	20.500	659.500	27.100
GR	660.000	33.700	659.800	37.900	658.500	44.000	664.400	44.000	664.400	47.000
GR	658.000	47.000	657.500	49.300	657.500	60.800	657.400	72.900	657.900	76.800
GR	664.400	76.800	664.000	79.800	657.000	79.800	654.000	83.200	654.800	87.700
GR	654.000	86.700	653.800	93.600	654.000	97.800	653.800	100.600	653.900	103.400
GR	653.600	110.400	664.400	110.400	664.400	113.400	653.600	113.400	654.000	114.600

1  
2- 4-91 15:49:24

PAGE 19

GR	653.300	117.500	653.000	137.900	651.900	146.300	652.100	148.700	664.400	148.700
GR	664.400	151.700	651.600	151.700	651.600	155.800	651.800	158.400	652.100	171.400
GR	653.400	179.200	664.400	179.200	664.400	182.200	652.700	182.200	653.100	203.500
GR	653.300	197.100	654.000	213.800	654.000	213.800	654.800	216.800	654.800	216.800
GR	652.900	229.400	653.700	236.600	653.100	240.200	653.800	259.400	664.400	259.400
GR	664.400	262.400	654.000	262.400	654.100	270.800	654.800	275.800	655.300	277.100
GR	659.500	283.700	659.500	286.300	659.600	288.200	659.600	297.500	659.700	301.100
GR	664.400	301.100	664.400	304.100	662.000	304.100	664.400	310.250	664.500	313.400
X1	34.100	69.000	6.400	313.100	15.000	15.000	15.000	.000	.000	.000
BT	9.000	.000	665.700	663.700	6.400	665.700	662.700	6.400	665.700	664.400
BT	14.600	665.700	664.400	17.600	667.550	664.400	215.000	667.550	664.400	218.000
GR	665.500	664.400	664.400	665.700	664.400	664.400	665.700	664.040	664.400	665.000
GR	663.700	.000	662.700	5.400	661.830	14.600	664.400	14.600	664.400	17.600
GR	661.830	17.600	661.230	25.000	659.100	34.800	659.000	38.000	659.200	44.300
GR	659.600	49.700	664.400	49.700	664.400	52.700	659.500	52.700	659.400	54.100
GR	657.300	62.000	657.900	73.300	657.500	83.100	664.400	83.100	664.400	86.100
GR	657.500	76.100	656.000	79.100	655.300	79.100	654.800	84.900	654.800	87.700
GR	654.000	103.000	654.400	110.000	654.100	115.700	664.400	115.700	664.400	119.700
GR	654.100	118.700	652.600	140.000	651.500	145.500	652.300	148.800	651.600	151.300
GR	664.400	151.300	664.400	154.300	651.600	154.300	652.000	155.000	651.600	167.500
GR	653.400	181.800	664.400	181.800	664.400	184.900	653.400	184.900	652.400	188.100
GR	652.600	198.100	652.600	215.000	664.400	215.000	664.400	218.000	652.600	218.000
GR	652.500	220.000	652.800	245.000	653.600	260.600	664.400	260.600	664.400	263.600
GR	653.600	263.600	654.000	276.900	654.800	280.400	655.400	281.500	659.000	287.400
GR	659.700	288.800	659.700	291.500	659.800	292.900	659.700	302.000	664.400	302.000
GR	664.400	305.700	664.400	305.700	664.400	305.700	664.400	305.700	664.400	305.700



GR	654.400	95.900	654.000	103.000	654.400	110.000	654.100	115.700	652.600	140.000
GR	651.500	145.500	652.300	148.800	651.600	151.300	652.000	155.000	651.600	167.500
GR	653.400	181.900	652.400	188.100	653.000	208.100	652.600	215.000	652.500	220.000
GR	652.800	245.000	653.400	260.600	654.000	276.900	654.800	280.400	655.400	281.500
GR	659.000	287.400	659.700	288.800	659.700	291.500	659.800	292.900	659.700	302.000

1  
2- 4-91 15:49:24

PAGE 20

GR	659.900	305.500	664.040	313.100	.000	.000	.000	.000	.000	.000
NH	4.000	.200	206.800	.150	281.700	.030	472.300	.040	507.500	.000
X1	32.000	46.000	281.700	472.300	100.000	100.000	100.000	.000	.000	.000
X3	10.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
GR	666.350	.000	663.450	49.300	662.550	108.200	662.250	149.100	662.150	195.900
GR	661.970	206.800	659.700	211.700	657.420	216.400	656.920	227.500	657.520	235.500
GR	657.320	241.000	657.720	244.200	658.120	254.600	657.720	258.800	658.820	262.500
GR	658.920	265.300	659.020	271.000	659.430	277.200	659.430	277.710	659.320	281.700
GR	656.920	287.900	655.200	293.600	654.590	296.500	654.100	299.500	653.100	317.800
GR	653.400	315.500	652.900	326.600	652.000	347.900	652.000	352.900	651.800	356.100
GR	652.200	379.600	652.600	387.600	652.600	406.300	653.300	433.000	653.400	459.500
GR	654.590	463.500	655.130	464.800	655.930	465.700	659.930	472.300	660.130	475.100
GR	660.130	476.200	660.130	480.800	660.130	485.600	660.430	493.500	662.830	502.600
GR	665.150	507.500	.000	.000	.000	.000	.000	.000	.000	.000

NC	.050	.050	.030	.000	.000	.000	.000	.000	.000	.000
X1	31.000	53.000	11.400	291.400	100.000	85.000	85.000	.000	.000	.000
X3	10.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
GR	665.800	.000	665.140	11.400	661.850	11.900	661.520	17.100	657.930	27.200
GR	658.400	45.900	658.150	64.000	659.160	68.100	659.600	71.400	659.940	83.300
GR	659.730	86.690	659.570	88.100	654.940	98.800	654.850	99.490	654.200	101.500
GR	653.800	112.500	653.600	114.000	653.500	118.000	652.800	125.100	652.900	129.000
GR	651.600	171.800	652.500	183.400	652.400	186.300	652.300	188.000	652.400	194.900
GR	652.300	196.000	652.400	197.800	652.800	209.200	651.500	225.000	651.500	226.800
GR	652.500	227.900	652.400	228.800	653.300	234.600	653.100	238.300	653.700	243.700
GR	653.900	253.200	654.850	256.190	654.910	256.600	657.010	259.900	659.570	263.600
GR	659.870	267.300	659.900	268.300	659.960	277.900	660.560	285.000	662.740	291.400
GR	664.960	292.100	666.350	292.700	666.020	367.500	.000	.000	.000	.000

NC	.000	.000	.028	.000	.000	.000	.000	.000	.000	.000
X1	30.200	65.000	11.400	291.400	1.000	1.000	1.000	.000	.000	.000
BT	5.000	.000	11.400	665.800	11.400	667.000	664.830	291.400	667.000	664.830
BT	292.100	667.000	664.830	292.700	667.000	666.350	.000	.000	.000	.000
GR	665.800	.000	665.140	11.400	661.850	11.900	661.520	17.100	657.930	27.200
GR	658.400	45.900	658.150	64.000	659.160	68.100	664.830	68.100	664.830	70.600
GR	659.160	70.600	659.600	71.400	659.940	83.300	660.560	86.690	659.570	88.100
GR	654.940	98.800	654.850	99.490	654.200	101.500	653.800	112.500	653.600	114.000

1  
2- 4-91 15:49:24

PAGE 21

GR	653.500	118.000	652.800	125.100	664.830	125.100	664.830	127.600	652.800	127.600
GR	652.900	129.000	653.000	131.900	651.800	151.900	652.000	155.900	651.600	157.600
GR	651.700	166.200	651.600	171.800	652.500	183.400	664.830	183.400	664.830	185.900
GR	652.500	185.900	652.400	186.300	652.300	188.000	652.400	194.900	652.300	196.000
GR	652.400	197.800	652.800	209.200	651.500	225.000	651.500	226.800	652.500	227.900
GR	652.400	228.800	653.300	234.600	664.830	234.600	664.830	237.100	653.400	237.100
GR	653.100	238.300	653.700	243.700	653.900	253.200	654.850	256.190	654.910	256.600
GR	657.100	259.100	659.570	263.600	659.870	267.300	659.900	268.300	659.960	277.900
GR	660.560	285.000	662.740	291.400	664.960	292.100	666.350	292.700	666.020	367.500

X1	30.100	56.000	9.600	290.800	11.000	11.000	11.000	.000	.000	.000
BT	3.000	.000	666.200	666.000	9.600	667.000	664.830	290.800	667.000	666.200
GR	666.000	.000	664.830	9.600	662.000	9.800	661.800	12.800	661.600	16.200
GR	661.900	43.600	658.400	59.500	659.500	66.600	664.830	66.600	664.830	69.100
GR	659.500	69.100	659.700	70.200	660.000	82.000	659.900	85.150	659.700	86.800
GR	655.100	98.400	654.850	98.400	654.200	108.500	653.500	108.500	653.500	113.200
GR	653.250	116.700	653.000	125.000	664.830	125.000	664.830	127.500	652.500	127.500
GR	652.250	133.900	651.450	151.100	651.450	159.700	651.850	163.100	652.750	174.000
GR	652.850	177.500	664.830	177.500	664.830	180.000	652.400	180.000	652.350	180.900
GR	651.850	182.700	651.450	191.200	651.450	208.400	652.050	220.400	652.750	231.300
GR	652.950	215.100	652.450	226.800	664.830	236.500	664.830	239.000	654.400	243.000
GR	653.150	241.600	653.450	249.200	655.100	253.800	659.700	261.700	659.900	265.000
GR	659.900	266.200	659.700	275.200	660.200	276.200	662.600	282.900	666.200	290.800
GR	666.200	367.000	.000	.000	.000	.000	.000	.000	.000	.000

NC	.000	.000	.030	.000	.000	.000	.000	.000	.000	.000
X1	29.000	44.000	9.600	290.800	1.000	1.000	1.000	.000	.000	.000
X3	10.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
GR	666.000	.000	664.900	9.600	662.000	9.800	661.800	12.800	661.600	16.200
GR	661.900	43.000	658.400	59.500	659.500	66.600	659.900	70.200	660.000	82.000
GR	659.500	65.150	659.700	86.800	655.100	98.400	654.850	98.400	654.200	108.500
GR	653.650	108.600	653.500	113.000	653.250	116.700	652.250	133.900	651.450	151.100
GR	651.450	159.700	651.850	163.100	652.750	174.000	652.850	177.500	652.450	179.200
GR	652.350	180.900	651.850	182.700	651.450	191.200	651.450	208.400	652.050	220.400
GR	652.750	231.300	652.450	226.800	652.450	236.500	651.450	241.600	653.450	249.200
GR	652.950	243.000	652.700	261.700	659.900	265.000	659.900	268.300	659.700	275.200
GR	660.200	276.200	662.600	282.900	666.200	290.800	666.200	367.000	.000	.000

1  
2- 4-91 15:49:24

PAGE 22

NH	4.000	.200	206.100	.150	254.300	.030	432.600	.040	462.300	.000
X1	28.000	45.000	254.300	432.600	170.000	155.000	155.000	.000	.000	.000
X3	9.000	.000	.000	.000	.000	445.000	.000	.000	.000	.000
GR	662.740	.000	662.040	45.200	661.940	90.200	661.140	145.900	660.040	190.200
GR	659.740	203.700	660.940	206.100	660.320	206.100	660.640	229.700	660.640	231.000
GR	660.140	235.300	659.240	238.900	657.440	243.900	656.840	247.400	657.640	254.300
GR	656.840	254.900	656.140	262.300	654.170	266.100	654.300	268.600	653.600	285.600
GR	652.600	306.600	651.600	327.600	651.500	344.400	651.300	344.400	651.500	348.000
GR	651.400	354.900	651.800	357.000	651.400	359.100	651.800	365.400	651.800	369.600
GR	652.500	378.000	652.600	388.500	652.500	390.600	652.400	392.700	652.300	409.500
GR	652.900	411.800	654.970	419.800	659.740	429.300	660.740	432.600	660.740	435.100
GR	660.840	436.000	660.740	436.500	660.640	445.500	661.840	452.600	667.320	462.300

NC	.000	.000	.000	.100	.300	.000	.000	.000	.000	.000
NH	4.000	.200	262.480	.150	304.770	.030	531.660	.200	654.420	.000
X1	27.000	37.000	314.200	548.100	450.000	515.000	485.000	.970	.000	.000
X3	9.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
GR	664.920	.000	664.120	95.700	663.040	187.100	663.220	194.600	662.920	212.100
GR	662.320	227.700	660.720	247.400	659.520	270.600	658.120	289.800	657.420	293.200
GR	657.010	308.520	656.510	311.200	656.610	314.200	655.410	316.400	654.910	321.400
GR	654.500	324.400	654.300	348.400	653.900	372.400	653.700	396.400	653.400	420.400
GR	653.000	444.400	653.100	468.400	653.300	482.800	653.400	49		





GR	656.090	527.800	656.890	530.800	658.090	533.500	661.490	538.300	663.590	540.400
GR	668.490	548.100	672.730	674.660	.000	.000	.000	.000	.000	.000
NH	4.000	.200	112.500	.150	138.700	.030	409.400	.150	492.700	.000
X1	26.000	50.000	138.700	409.400	310.000	355.000	340.000	.000	.000	.000
GR	664.710	.000	664.940	.600	664.840	15.000	665.040	19.700	664.740	56.300
GR	664.040	73.400	663.240	87.280	661.740	99.400	665.040	112.500	658.840	124.400
GR	658.330	131.920	658.590	132.000	658.210	138.700	657.310	144.100	656.410	154.500
GR	656.310	137.900	655.610	159.900	655.030	163.100	654.500	166.700	654.500	208.900
GR	654.300	234.700	653.800	260.500	653.700	275.400	653.800	286.300	653.800	296.600
GR	653.500	305.600	653.600	312.100	653.900	317.300	653.700	322.400	653.900	327.600
GR	653.500	337.900	653.700	343.100	653.600	348.200	654.000	353.700	653.900	374.000
GR	653.600	379.200	654.000	389.200	654.930	394.200	655.590	394.800	657.090	396.800
GR	657.690	399.400	657.990	401.100	658.690	409.400	661.290	413.200	667.190	420.600
GR	668.390	423.800	670.290	426.600	670.430	427.200	672.410	440.800	676.880	492.700

1 2- 4-91 15:49:24 PAGE 23

NH	4.000	.070	12.510	.030	241.510	.150	359.130	.200	526.830	.000
X1	25.000	43.000	12.510	241.510	825.000	940.000	890.000	.000	.000	.000
X3	.000	.000	.000	.000	.000	360.000	.000	.000	.000	.000
GR	666.370	.000	657.910	12.510	655.270	16.220	655.600	17.800	654.400	40.300
GR	654.600	25.300	654.400	27.700	654.600	32.700	654.600	45.100	654.500	69.900
GR	654.700	79.800	654.000	94.700	653.400	119.500	654.200	144.300	654.400	151.700
GR	654.300	169.100	654.800	193.900	655.200	208.800	655.100	219.000	655.600	234.000
GR	656.730	238.030	657.480	241.510	657.670	250.300	657.670	255.100	658.770	261.800
GR	658.990	296.230	658.040	336.630	657.440	323.730	656.700	328.300	656.700	328.300
GR	662.000	342.100	662.800	359.130	665.000	359.230	665.000	360.130	664.350	399.530
GR	665.850	422.230	666.630	472.830	666.750	484.430	667.050	486.230	666.950	496.330
GR	667.950	505.330	668.150	518.530	670.050	526.830	.000	.000	.000	.000

NH	5.000	.050	32.600	.030	238.400	.150	308.500	.015	319.600	.200
NH	412.400	.000	.000	.000	.000	.000	.000	.000	.000	.000
X1	24.000	50.000	32.600	238.400	540.000	460.000	515.000	.000	.000	.000
X3	.000	.000	.000	.000	.000	308.000	.000	.000	.000	.000
GR	667.740	.000	664.350	5.800	662.650	12.800	660.250	23.600	659.350	28.700
GR	658.250	32.600	656.200	40.300	655.270	45.400	655.710	46.400	654.700	40.300
GR	654.200	54.700	653.100	60.200	652.400	70.200	654.000	81.000	652.200	91.000
GR	652.900	111.800	653.500	132.600	654.200	153.400	654.700	174.200	655.200	188.800
GR	655.300	195.000	655.200	216.200	655.710	220.200	655.930	224.800	656.330	227.400
GR	656.830	228.700	657.030	232.000	657.530	236.100	658.630	238.400	658.430	257.800
GR	658.530	276.200	659.730	290.000	660.230	297.100	661.470	300.880	662.230	308.400
GR	662.130	308.500	662.030	319.000	662.130	319.600	662.630	326.200	662.830	332.200
GR	662.730	350.100	662.630	356.100	663.930	356.200	664.130	366.400	664.530	368.900
GR	664.430	382.800	664.430	384.500	664.630	395.700	664.630	397.400	665.830	412.400

NH	4.000	.040	105.800	.100	121.700	.030	250.200	.070	344.800	.000
X1	23.000	46.000	121.700	250.200	510.000	500.000	500.000	.000	.000	.000
GR	671.650	.000	670.490	37.600	668.710	63.900	667.580	77.000	664.290	86.600
GR	663.390	94.800	659.660	105.800	658.240	110.100	657.900	113.800	656.520	117.600
GR	656.870	121.700	656.280	122.900	655.710	128.000	655.500	132.000	655.200	137.100
GR	652.700	142.100	650.800	152.200	649.500	158.700	649.200	162.300	651.200	172.400
GR	651.600	178.500	651.500	182.500	651.400	184.600	652.200	190.400	652.100	192.600
GR	652.000	202.700	653.000	212.800	653.700	222.900	654.600	233.000	655.200	241.100
GR	655.200	243.700	655.710	246.700	655.850	250.200	656.450	252.000	656.050	253.600
GR	656.050	259.000	657.550	263.100	659.250	303.600	659.350	305.800	659.950	316.800

1 2- 4-91 15:49:24 PAGE 24

GR	660.150	319.200	661.650	322.700	663.350	327.600	665.050	333.000	666.850	342.600
GR	666.850	344.800	.000	.000	.000	.000	.000	.000	.000	.000
NC	.050	.050	.030	.300	.500	.000	.000	.000	.000	.000
X1	22.000	64.000	90.500	399.000	120.000	120.000	120.000	.850	.000	.000
X3	10.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
GR	671.500	.000	669.700	45.200	668.710	90.500	668.300	92.300	665.900	96.900
GR	665.300	97.600	664.900	99.000	662.000	110.200	655.800	128.700	655.760	130.000
GR	655.200	132.000	655.200	135.400	654.800	138.800	654.300	142.200	654.300	143.900
GR	654.500	146.300	654.300	147.700	654.300	151.800	654.400	152.500	653.900	155.900
GR	653.800	161.000	652.400	160.900	650.900	170.300	653.000	173.300	651.000	174.400
GR	651.400	196.000	652.400	196.700	652.100	199.400	652.400	200.900	651.600	203.500
GR	651.600	203.900	652.300	207.700	651.800	217.100	653.800	231.500	653.400	236.800
GR	652.900	240.900	653.000	241.700	653.100	243.600	653.000	245.100	653.100	257.200
GR	653.400	264.400	654.600	273.400	654.800	279.500	654.800	283.300	655.100	287.100
GR	655.300	301.000	655.200	305.200	656.700	313.300	656.700	312.100	656.000	320.800
GR	658.100	355.200	657.900	355.500	658.000	360.100	658.200	361.600	658.900	376.200
GR	659.700	381.500	661.100	386.800	665.100	394.800	666.500	399.400	666.810	422.800
GR	666.900	489.700	667.600	560.500	670.000	648.900	671.700	699.400	.000	.000

NC	.000	.000	.026	.000	.000	.000	.000	.000	.000	.000
X1	22.100	87.000	90.500	399.000	1.000	1.000	1.000	.850	.000	.000
X2	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
GR	671.500	.000	669.700	45.200	668.710	90.500	668.300	92.300	666.700	95.000
GR	665.900	96.900	665.300	97.600	664.900	99.000	662.000	110.200	655.800	128.700
GR	655.700	130.000	666.490	130.000	666.490	131.300	655.760	131.300	655.200	132.000
GR	655.200	135.400	654.800	138.800	654.300	142.200	654.300	143.900	654.500	146.300
GR	654.300	147.700	654.300	151.800	654.400	152.500	653.900	155.900	653.800	161.300
GR	651.300	166.100	650.900	170.200	666.280	170.200	666.280	171.500	650.900	171.500
GR	651.200	173.200	651.000	186.000	652.400	186.000	652.400	186.700	652.100	189.400
GR	652.400	200.900	651.600	203.500	651.000	203.900	666.070	203.900	666.070	205.200
GR	651.600	205.200	652.300	207.700	651.800	217.100	653.800	231.500	653.400	236.800
GR	652.900	240.900	653.000	241.700	653.100	243.600	653.000	245.100	665.860	245.100
GR	665.860	246.400	653.000	246.400	653.100	257.200	653.400	264.400	654.600	273.400
GR	654.800	279.500	655.800	283.300	656.700	287.100	665.000	287.100	665.000	287.100
GR	655.100	288.400	655.300	301.600	655.200	304.100	655.760	311.100	656.700	322.100
GR	665.440	332.100	665.440	333.400	656.700	333.400	658.000	340.800	658.100	355.200
GR	657.900	355.500	658.000	360.100	658.200	361.600	658.900	372.000	665.230	372.000
GR	665.230	373.300	658.600	373.300	658.900	376.200	659.700	381.500	661.100	386.800

1 2- 4-91 15:49:24 PAGE 25

GR	665.100	394.800	666.500	399.000	666.810	422.830	666.900	489.700	667.600	560.500
GR	670.000	648.900	671.700	699.400	.000	.000	.000	.000	.000	.000
X1	22.200	73.000	.000	319.500	33.000	33.000	33.000	.850	.000	.000
X2	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
GR	668.610	.000	668.200	1.900	667.230	4.000	666.100	7.500	666.000	.000
GR	662.000	24.900	655.900	42.700	654.470	44.700	667.050	44.700	667.050	46.000
GR	654.470	46.000	654.700	49.900	654.500	56.800	654.500	58.500	654.100	72.300
GR	653.000	79.200	651.600	82.900	666.810	82.900	666.810	84.200	651.600	84.200
GR	651.600	86.800	651.400	88.600	651.600	98.100	651.700	107.900	652.400	115.100
GR	652.500	117.000	652.500	119.200	652.400	120.700	666.570	120.700	666.570	122.000
GR	652.400	122.000	652.500	124.800	653.600	132.100	654.000	137.800	653.900	147.200





GR	654.200	151.000	653.400	154.800	654.300	160.500	666.300	160.500	666.300	161.800
GR	654.300	161.800	654.100	161.300	655.300	185.000	665.300	192.600	665.300	204.000
GR	666.090	204.000	666.090	205.300	655.300	205.300	655.400	222.500	655.900	228.500
GR	657.100	248.500	665.860	248.500	665.860	249.800	657.100	249.800	666.100	276.700
GR	657.500	288.000	665.630	288.000	665.630	289.300	657.500	289.300	658.800	294.900
GR	662.200	305.200	663.900	309.500	663.900	317.700	665.420	317.700	666.500	319.500
GR	666.440	322.600	666.440	324.000	666.700	339.600	666.500	408.900	666.500	453.100
GR	666.900	500.000	668.800	574.900	670.800	632.500	666.000	500.000	666.000	500.000
NC	21.000	.000	.030	.000	.000	.000	.000	.000	.000	.000
X1	21.000	49.000	.000	319.500	1.000	1.000	1.000	.850	.000	.000
X3	10.900	.000	.000	.000	.000	.000	.000	.000	.000	667.000
GR	668.610	.000	668.200	1.900	666.900	4.800	666.100	7.500	666.000	9.500
GR	662.000	24.900	655.900	42.700	654.470	44.700	654.700	49.900	654.500	56.800
GR	654.300	58.500	654.100	72.300	653.000	79.200	651.600	82.900	651.600	86.800
GR	651.400	89.600	651.600	98.100	651.700	107.900	652.400	115.100	652.400	117.000
GR	652.500	119.200	652.400	120.700	652.500	124.800	653.600	132.100	654.000	137.800
GR	653.900	147.200	654.200	151.000	653.400	154.800	654.300	160.500	654.100	161.300
GR	655.300	185.000	655.300	192.600	655.400	222.500	655.900	228.500	657.100	248.500
GR	656.100	276.700	658.800	294.900	662.200	305.200	663.900	309.500	663.900	311.500
GR	665.800	317.700	666.500	319.500	666.440	322.500	666.700	359.600	666.500	408.900
GR	666.500	453.100	666.900	500.000	668.800	574.900	670.800	632.500	.000	.000

1 2- 4-91 15:49:24

PAGE 26

NB	4.000	.040	52.600	.030	267.000	.070	297.600	.050	521.400	.000
X1	20.000	63.000	52.600	267.000	70.000	70.000	70.000	.000	.000	.000
GR	670.770	.000	669.770	57.900	669.770	62.800	669.070	49.600	668.000	52.000
GR	668.610	54.900	667.580	57.100	664.470	61.800	663.970	66.600	661.970	74.300
GR	655.900	89.300	654.300	91.800	654.200	93.800	654.500	97.700	654.300	101.600
GR	653.600	111.400	652.100	121.800	652.100	126.300	651.900	128.700	652.100	131.600
GR	652.400	140.800	652.900	150.600	652.900	160.400	653.100	170.200	653.000	175.000
GR	653.400	180.000	653.600	184.200	653.300	189.800	653.900	195.800	653.900	199.500
GR	654.200	209.400	654.900	219.200	655.100	229.000	655.200	238.800	655.300	249.200
GR	655.900	262.200	655.970	264.300	656.470	265.300	656.670	266.100	657.700	266.400
GR	657.770	266.800	658.870	267.000	659.070	279.900	659.670	289.200	660.570	290.500
GR	661.070	296.400	661.570	297.600	663.000	319.010	662.100	321.240	663.370	322.400
GR	663.700	324.600	664.700	328.800	665.180	389.180	664.180	431.400	665.000	437.000
GR	666.720	442.600	667.670	459.700	668.180	462.300	668.240	471.400	668.020	473.400
GR	668.680	474.300	670.480	501.800	672.380	521.400	.000	.000	.000	.000
NC	.000	.000	.100	.300	.000	.000	.000	.000	.000	.000
NB	4.000	.050	110.700	.070	156.500	.000	437.400	.050	541.300	.000
X1	19.000	54.000	156.500	437.400	455.000	405.000	430.000	.000	.000	.000
GR	671.000	.000	668.400	66.900	667.900	77.000	667.000	79.500	666.800	85.300
GR	666.500	90.900	666.900	94.500	666.890	104.100	665.100	110.700	659.300	141.400
GR	659.000	156.500	657.000	168.900	656.200	169.600	655.960	171.500	655.300	173.000
GR	655.100	176.200	655.200	179.400	655.000	183.600	655.100	194.200	655.500	204.800
GR	655.400	215.400	655.860	235.400	656.260	246.700	655.860	257.500	655.300	260.000
GR	654.700	271.200	654.600	278.600	654.700	293.500	654.200	297.200	654.600	306.800
GR	654.500	315.800	654.800	334.400	654.200	348.900	654.200	353.000	654.100	355.700
GR	653.000	362.300	652.900	372.500	652.900	375.400	652.900	375.400	653.000	398.200
GR	654.100	408.800	655.960	412.300	656.400	413.100	657.900	419.800	665.900	437.000
GR	665.700	438.800	666.300	447.200	666.600	454.500	666.900	465.000	667.100	472.800
GR	669.500	515.300	670.100	522.400	670.800	524.500	672.500	541.300	.000	.000
NB	4.000	.040	728.500	.070	775.600	.030	988.300	.050	1017.390	.000
X1	18.000	46.000	775.600	988.300	700.000	590.000	630.000	.000	.000	.000
X3	.000	.000	.000	700.000	.000	.000	.000	.000	.000	.000
GR	671.500	.000	670.300	55.500	668.800	154.200	666.400	271.000	665.000	365.700
GR	664.600	473.500	663.600	576.200	663.300	672.600	663.360	675.100	664.000	679.900
GR	663.200	684.800	663.400	686.400	663.400	686.400	661.400	710.700	661.300	729.500
GR	660.500	745.800	658.400	754.300	658.500	775.600	656.900	783.500	656.150	783.800

1 2- 4-91 15:49:24

PAGE 27

GR	655.500	787.300	654.750	809.900	654.200	832.500	653.800	855.100	653.650	866.900
GR	653.200	877.700	653.000	881.500	654.200	895.800	653.950	900.300	654.050	903.900
GR	654.050	913.200	654.450	920.600	654.350	922.900	654.350	937.800	654.450	943.700
GR	654.600	945.500	654.700	947.800	655.050	949.600	654.900	950.900	655.650	968.000
GR	656.150	972.000	656.600	973.100	658.700	974.600	668.800	988.300	668.300	994.000
GR	696.990	1017.390	.000	.000	.000	.000	.000	.000	.000	.000
NB	4.000	.040	472.700	.070	693.000	.030	900.000	.050	930.900	.000
X1	17.000	46.000	693.000	900.000	415.000	520.000	485.000	.000	.000	.000
X3	.000	.000	.000	858.000	.000	.000	.000	.000	.000	.000
GR	668.040	.000	667.540	43.000	666.140	152.000	664.740	280.800	665.040	354.000
GR	664.740	472.700	664.240	475.500	663.840	495.400	663.740	496.500	663.540	499.500
GR	663.740	500.500	662.540	551.000	662.640	601.800	661.640	607.100	660.740	646.900
GR	660.680	650.780	658.940	693.000	657.540	706.600	656.250	730.800	655.750	733.800
GR	655.600	746.900	655.250	758.400	656.600	773.000	654.100	792.600	653.600	814.200
GR	653.100	820.000	653.050	831.800	653.000	843.400	652.650	851.400	652.550	858.500
GR	654.250	866.500	654.050	871.000	654.500	873.900	654.500	875.700	655.100	883.400
GR	655.350	890.500	656.250	894.500	656.640	896.700	657.740	898.400	659.540	900.000
GR	660.340	910.500	666.040	921.400	666.440	922.900	667.840	924.500	668.040	926.900
GR	671.540	930.900	.000	.000	.000	.000	.000	.000	.000	.000
NB	4.000	.040	908.670	.070	958.800	.030	1155.300	.050	1183.900	.000
X1	16.000	34.000	958.800	1155.300	210.000	305.000	280.000	.000	.000	.000
X3	.000	.000	.000	858.000	.000	.000	.000	.000	.000	.000
GR	673.100	.000	668.600	197.500	667.600	282.100	666.200	412.800	664.700	538.500
GR	665.100	626.500	663.600	751.400	663.400	858.300	660.670	908.670	660.200	928.900
GR	658.200	946.900	658.500	958.800	656.800	971.400	656.300	980.500	655.900	984.500
GR	654.900	1010.600	654.900	1036.700	654.500	1050.300	654.050	1054.400	653.850	1062.800
GR	653.500	1088.900	653.500	1099.300	653.300	1115.000	653.100	1140.900	652.300	1149.000
GR	657.000	1148.600	656.900	1151.600	659.200	1155.300	660.100	1170.700	662.300	1174.800
GR	669.200	1177.000	669.700	1178.900	669.100	1182.200	672.000	1183.900	.000	.000
NB	4.000	.040	890.400	.100	946.200	.030	1193.300	.050	1351.830	.000
X1	15.000	44.000	946.200	1193.300	325.000	435.000	400.000	.000	.000	.000
X3	.000	.000	.000	860.000	.000	.000	.000	.000	.000	.000
GR	672.600	.000	670.500	105.900	668.500	235.000	666.600	377.500	666.300	515.100
GR	665.500	639.900	664.400	758.700	664.400	843.200	661.000	890.400	661.210	898.280
GR	660.600	908.900	658.700	917.500	658.800	934.300	657.900	939.700	658.200	946.200
GR	656.200	955.000	656.100	955.100	655.800	960.100	655.450	981.800	655.200	1003.500

1 2- 4-91 15:49:24

PAGE 28

GR	655.150	1025.200	654.900	1046.900	655.150	1068.800	655.250	1090.300	655.150	1112.000
GR	655.000	1133.700	655.100	1143.500	654.550	1153.000	656.500	1155.400	656.450	1160.000
GR	655.200	1168.600	655.500	1177.100	656.100	1179.600	656.500	1180.100	657.700	1182.400
GR	662.000	1181.000	662.000	1181.000	662.000	1191.000	662.000	1201.000	662.000	1201.000
GR	668.600	1205.500	669.700	1208.000	673.100	1226.800	724.940	1351.830	668.600	1205.500



NH	4.000	.040	624.400	.100	653.300	.030	916.100	.050	1047.650	.000
X1	14.000	62.000	653.300	916.100	480.000	560.000	530.000	.000	.000	.000
GR	673.100	.000	671.100	83.900	670.000	165.400	668.900	226.500	667.800	307.400
GR	667.100	384.500	667.200	455.800	676.200	534.500	666.700	573.600	666.800	575.900
GR	666.200	51.000	666.400	666.400	666.400	584.600	666.400	604.300	666.400	618.300
GR	663.900	624.400	662.300	633.100	661.400	640.600	660.000	647.300	659.900	651.800
GR	660.100	653.300	659.300	664.900	658.500	672.500	637.100	680.900	656.600	694.400
GR	656.200	699.400	655.900	725.900	655.600	752.400	655.250	778.900	655.300	795.900
GR	655.500	805.400	655.450	814.400	655.350	817.400	655.450	819.400	655.350	829.300
GR	655.400	831.900	655.300	837.200	655.400	842.500	655.450	849.900	655.250	858.400
GR	655.450	869.300	655.500	874.600	655.600	877.200	655.550	884.900	655.950	898.400
GR	656.000	904.500	655.850	911.000	656.600	913.500	657.000	914.100	659.400	916.100
GR	659.100	920.900	659.700	924.900	660.300	927.300	660.100	929.600	661.400	933.900
GR	666.600	938.000	665.300	939.300	667.000	942.200	668.500	944.600	669.600	951.500
GR	670.500	954.400	716.120	1047.650	.000	.000	.000	.000	.000	.000
NH	3.000	.040	287.900	.030	594.300	.050	730.340	.000	.000	.000
X1	13.000	40.000	287.900	594.300	435.000	450.000	445.000	.000	.000	.000
GR	672.400	.000	671.300	39.500	670.000	111.800	669.200	175.700	669.100	177.400
GR	668.600	179.500	669.100	181.400	668.700	235.100	667.940	254.600	667.000	267.300
GR	664.200	287.900	659.700	305.700	658.300	323.700	656.800	336.900	655.900	339.900
GR	656.100	353.800	656.200	368.900	656.000	397.300	655.800	426.900	655.650	436.800
GR	655.750	442.000	655.800	446.900	655.750	451.300	655.800	455.900	656.100	484.900
GR	655.950	513.900	655.550	524.100	655.500	532.900	655.750	542.900	655.950	562.300
GR	656.100	571.800	656.800	573.800	657.800	577.500	659.400	587.900	661.500	591.500
GR	662.500	594.300	668.700	623.500	669.200	627.900	672.900	642.200	705.560	730.340
NH	4.000	.050	16.800	.030	257.600	.050	307.100	.040	510.800	.000
X1	12.000	43.000	16.800	257.600	945.000	950.000	950.000	.000	.000	.000
GR	679.490	.000	662.780	16.800	657.940	21.100	657.380	23.100	656.780	26.100
GR	656.680	30.400	656.730	32.400	656.380	39.400	656.330	46.200	656.130	48.700
GR	654.980	71.300	654.730	84.900	655.130	93.900	655.580	116.500	655.730	139.100
GR	656.030	161.700	656.430	174.400	656.380	184.300	656.430	206.900	656.730	229.500

1 2- 4-91 15:49:24 PAGE 29

GR	657.030	252.400	657.380	253.900	657.650	254.200	660.800	257.600	660.860	261.600
GR	660.590	263.300	661.940	267.500	662.710	272.200	663.960	301.600	664.680	303.000
GR	664.420	304.400	665.760	307.100	665.730	307.600	665.710	307.900	665.500	309.000
GR	665.550	402.600	665.360	462.000	665.660	492.200	666.860	494.300	666.620	496.600
GR	667.680	498.800	671.500	506.300	673.640	510.800	.000	.000	.000	.000
NH	4.000	.050	37.300	.030	250.200	.070	272.000	.040	723.000	.000
X1	11.000	54.000	37.300	250.200	1190.000	1050.000	1130.000	.000	.000	.000
GR	675.300	.000	665.360	12.300	663.880	36.560	663.720	37.300	660.660	39.500
GR	658.080	44.100	657.520	48.600	657.070	51.600	657.120	70.700	656.820	73.500
GR	655.770	77.200	656.720	80.800	656.420	95.400	657.420	117.300	657.870	120.300
GR	655.170	129.100	654.820	134.800	654.870	139.200	655.270	149.900	655.270	161.100
GR	655.320	166.800	654.770	177.100	654.820	180.200	654.820	183.000	654.770	185.200
GR	654.970	186.900	654.820	190.900	654.920	197.700	655.670	204.900	656.420	214.300
GR	656.420	218.300	657.020	227.000	657.520	230.500	658.120	239.400	658.640	241.800
GR	659.050	247.700	661.820	248.300	661.300	254.700	661.470	254.700	661.880	260.300
GR	663.610	262.000	665.120	268.700	665.240	270.500	665.720	272.000	666.100	273.400
GR	666.740	473.200	667.290	466.980	666.980	529.600	666.660	635.400	666.750	709.100
GR	667.150	709.800	667.210	713.400	667.800	716.200	667.970	723.000	.000	.000
NH	4.000	.050	132.100	.100	199.900	.030	439.500	.050	462.600	.000
X1	10.000	42.000	199.900	439.500	880.000	780.000	825.000	.000	.000	.000
GR	675.310	.000	672.520	57.100	668.150	62.300	667.890	77.300	669.530	80.400
GR	669.400	82.600	667.470	94.600	666.530	109.300	665.890	114.500	665.700	132.100
GR	661.620	141.800	661.150	156.700	660.510	176.000	659.910	187.200	658.590	198.100
GR	658.950	193.900	658.340	216.000	658.000	221.800	657.450	241.800	657.350	260.300
GR	657.350	278.400	657.350	296.700	657.300	315.000	657.200	333.300	656.900	356.600
GR	656.800	369.900	656.900	379.200	656.350	388.200	655.950	403.600	656.000	406.500
GR	657.050	415.300	657.350	422.400	657.300	424.500	658.000	427.500	659.240	432.500
GR	662.040	437.200	665.940	439.500	666.440	441.600	670.840	445.800	672.840	448.700
GR	675.440	454.400	676.180	462.600	.000	.000	.000	.000	.000	.000
NH	4.000	.040	324.200	.070	343.300	.030	527.400	.050	550.100	.000
X1	9.000	51.000	343.300	527.400	610.000	635.000	630.000	.000	.000	.000
GR	675.250	.000	674.050	34.900	673.150	44.200	672.950	63.500	672.650	70.000
GR	670.850	136.800	671.800	148.300	674.700	159.600	674.350	168.200	673.900	245.900
GR	668.580	266.100	668.250	270.500	667.130	276.800	665.930	293.800	664.430	300.500
GR	663.730	311.300	663.730	312.300	663.430	312.400	663.330	319.500	663.630	319.700
GR	663.330	324.200	662.730	327.900	660.630	333.500	661.030	343.300	658.630	349.700

1 2- 4-91 15:49:24 PAGE 30

GR	658.280	350.700	657.780	353.200	657.280	373.100	656.580	393.000	655.980	412.800
GR	655.780	419.200	654.380	432.700	655.180	443.200	656.530	448.000	656.580	452.600
GR	656.230	455.600	656.030	458.000	654.780	463.900	655.030	466.100	654.980	467.900
GR	655.080	470.100	655.530	472.500	656.680	482.800	655.930	492.400	656.830	500.900
GR	657.680	512.200	658.280	514.700	659.950	521.200	660.850	527.400	669.850	540.300
GR	676.750	550.100	.000	.000	.000	.000	.000	.000	.000	.000
NH	4.000	.040	437.700	.100	468.600	.030	656.500	.050	764.500	.000
X1	8.000	49.000	468.600	656.500	530.000	700.000	655.000	.000	.000	.000
X3	.000	.000	.000	407.000	.000	.000	.000	.000	.000	.000
GR	674.560	.000	672.710	70.500	671.390	131.960	670.980	137.200	671.260	139.600
GR	671.240	145.900	670.780	150.500	670.920	154.800	670.920	155.000	670.870	164.400
GR	670.330	167.700	670.380	172.100	668.660	268.100	667.500	335.800	666.170	397.000
GR	662.980	437.700	661.790	450.800	661.090	468.600	658.970	475.700	658.590	485.460
GR	658.090	487.960	657.740	507.800	657.090	527.600	656.140	547.400	655.390	563.000
GR	655.440	567.200	655.290	569.200	655.240	575.300	656.540	587.000	657.290	596.500
GR	656.480	606.800	656.180	608.340	656.180	613.500	656.180	619.500	656.180	625.900
GR	656.090	622.400	656.590	626.600	656.340	636.900	656.140	641.100	657.140	646.460
GR	658.590	648.460	660.030	652.400	661.230	653.500	662.830	656.500	661.930	659.300
GR	662.130	664.000	668.130	673.100	676.930	679.300	676.270	674.500	.000	.000
NH	4.000	.050	293.760	.070	313.060	.030	530.660	.070	873.000	.000
X1	7.000	68.000	313.060	530.660	805.000	1015.000	915.000	.000	.000	.000
X3	.000	.000	.000	.000	.000	700.000	.000	.000	.000	.000
GR	675.400	.000	674.000	17.600	673.200	47.200	672.800	61.300	671.700	83.500
GR	670.200	102.600	669.400	103.700	670.500	110.100	671.800	129.900	670.300	137.100
GR	672.400	144.100	672.700	148.300	674.700	210.700	674.350	227.100	673.900	247.900
GR	668.000	279.460	664.500	293.760	660.800	313.060	658.780	320.360	658.230	322.360
GR	658.080	335.000	657.280	340.600	657.780	347.200	657.480	358.800	656.830	363.200
GR	657.480	367.500	657.630	377.000	657.680	381.400	656.730	395.200	656.580	398.700
GR	657.430	410.300	657.480	413.500	657.380	431.700	657.530	449.900	657.530	468.100
GR	658.080	486.300	658.180	494.580	658.780	499.560	658.980	504.960	658.780	509.360
GR	658.080	515.860	658.780	521.960	659.220	523.760	660.900	530.660	660.400	539.760
GR	661.400	542.160	661.300	553.660	664.600	560.760	666.200	563.460	666.300	565.180
GR	664.500	580.760	667.500	594.060	672.600	632.460	683.600	643.460	684.000	648.000
GR	665.000	676.560	666.100	690.860	687.100	742.760	667.200	776.360	687.100	784.760





GR	665.600	785.660	646.200	786.240	668.300	796.460	668.700	818.360	669.200	823.560
GR	673.300	838.860	675.600	853.460	677.260		873.000			

1 2- 4-91 15:49:24 PAGE 31

NH	4.000	.050	36.100	.030	235.600	.070	296.400	.050	696.600	.000
X1	6.000	45.000	36.100	235.600	265.000	315.000	285.000	.000	.000	.000
X3	.000	.000	.000	.000	.000	300.000	.000	.000	.000	.000
GR	675.680	.000	674.910	3.300	673.210	8.100	669.910	13.400	646.310	21.900
GR	664.410	35.000	663.810	36.100	658.900	46.300	658.250	48.300	658.000	61.500
GR	657.200	69.300	657.550	90.200	656.200	111.200	656.100	132.100	656.750	153.100
GR	657.550	174.000	658.000	185.600	658.600	215.800	657.900	238.800	659.510	270.800
GR	660.610	332.400	661.610	235.600	661.310	248.500	661.610	254.200	663.610	259.100
GR	663.910	261.200	664.100	265.610	665.310	288.800	665.510	292.700	666.710	296.400
GR	667.210	327.200	667.710	337.700	668.210	397.200	667.910	400.800	668.610	404.400
GR	668.610	409.800	667.910	414.400	668.510	418.300	667.910	458.700	671.610	497.100
GR	672.610	539.100	673.010	567.900	673.310	609.400	673.910	657.900	674.510	696.600

NH	4.000	.050	38.210	.030	292.030	.070	308.640	.040	613.340	.000
X1	5.000	55.000	39.800	304.200	590.000	475.000	550.000	.960	.000	.000
GR	685.570	.000	676.400	18.900	665.680	36.900	663.290	39.800	661.540	45.300
GR	660.420	53.600	659.190	65.200	658.540	67.200	657.690	78.100	657.880	81.300
GR	657.990	83.900	656.840	92.400	656.790	95.800	656.840	104.100	657.440	110.100
GR	658.040	114.800	658.090	124.400	658.090	138.700	658.140	153.000	658.240	167.300
GR	658.490	181.600	659.090	186.600	659.090	191.900	658.450	194.900	658.700	199.200
GR	659.300	203.500	658.400	207.700	658.500	220.500	658.700	233.300	658.400	246.100
GR	659.350	258.900	658.350	271.700	658.200	276.000	658.700	284.600	659.090	287.600
GR	659.860	296.700	660.750	299.200	660.860	301.700	662.140	304.200	662.470	309.800
GR	662.820	314.300	663.930	317.200	664.610	321.500	667.660	343.600	668.030	350.500
GR	669.690	384.100	668.930	406.200	669.120	415.900	669.070	447.000	669.650	452.700
GR	669.190	458.600	670.180	513.200	671.820	547.900	672.860	581.100	673.120	638.900

NH	6.000	.050	3.700	.030	157.500	.050	496.700	.070	668.200	.030
NH	771.400	.050	959.300	.000	.000	.000	.000	.000	.000	.000
X1	4.000	86.000	3.700	157.500	715.000	700.000	700.000	.000	.000	.000
GR	675.380	67.710	674.710	67.010	687.010	3.700	681.240	7.500	657.010	8.700
GR	659.880	10.400	659.350	12.400	658.900	23.900	657.480	35.400	657.680	42.300
GR	657.350	46.900	658.000	58.400	659.130	61.800	658.900	69.900	659.100	73.300
GR	659.000	81.400	658.900	92.900	657.950	104.400	657.080	112.100	657.000	115.900
GR	657.900	127.400	658.850	138.900	659.550	150.400	659.980	152.900	662.880	157.500
GR	664.480	167.300	664.880	176.500	668.280	192.800	669.100	206.800	669.580	216.200
GR	670.380	259.000	669.780	269.300	669.780	306.400	669.280	355.500	669.080	396.200
GR	669.280	433.000	669.880	468.500	666.180	496.700	664.680	512.900	663.080	521.300

1 2- 4-91 15:49:24 PAGE 32

GR	661.880	527.800	662.980	537.000	662.480	560.600	664.380	566.100	663.380	572.200
GR	663.480	597.500	662.480	625.300	662.180	649.600	661.680	668.200	661.480	671.500
GR	659.880	675.700	659.130	678.700	659.280	687.400	659.130	696.100	658.880	704.800
GR	659.180	718.900	658.900	722.200	658.780	726.500	658.900	735.900	659.180	744.200
GR	658.600	739.600	659.150	748.300	659.980	757.300	659.450	759.800	660.480	762.000
GR	662.080	767.700	662.810	769.000	663.380	770.000	663.510	771.400	670.110	780.900
GR	672.440	789.670	673.910	802.300	673.910	825.200	673.810	829.200	674.210	839.600
GR	674.010	843.700	674.310	846.600	674.510	850.300	674.510	853.300	673.910	858.100
GR	674.510	868.900	674.410	883.600	669.410	907.700	668.910	926.000	673.110	947.700
GR	673.810	959.300	.000	.000	.000	.000	.000	.000	.000	.000

NH	4.000	.050	116.820	.030	376.520	.050	440.310	.040	816.050	.000
X1	3.000	39.000	119.200	384.200	700.000	940.000	900.000	.980	.000	.000
X3	.000	.000	.000	.000	.000	500.000	.000	.000	.000	.000
GR	678.600	.000	677.600	4.500	674.800	16.100	670.900	31.500	667.200	64.000
GR	667.600	77.500	665.700	91.300	665.400	95.200	665.600	110.600	665.400	119.200
GR	660.700	128.730	660.100	138.730	659.900	162.430	659.100	186.130	659.600	197.980
GR	659.400	209.830	659.700	233.530	659.700	257.230	659.500	280.930	659.700	304.430
GR	659.900	328.330	660.000	352.930	660.200	375.300	660.600	377.830	662.100	394.200
GR	662.500	407.400	664.400	449.300	665.000	463.100	666.200	517.400	666.900	546.500
GR	667.800	562.000	667.900	621.000	669.100	654.000	672.400	669.500	673.880	682.130
GR	674.100	711.600	674.000	725.000	673.800	787.300	674.000	832.700	.000	.000

NH	4.000	.050	25.100	.030	238.700	.070	287.600	.040	640.200	.000
X1	2.000	37.000	25.100	238.700	800.000	635.000	725.000	.000	.000	.000
GR	678.310	.000	672.630	12.400	663.590	25.100	661.250	32.700	660.890	37.600
GR	659.990	40.600	659.590	47.700	659.170	52.500	658.890	62.000	659.090	64.400
GR	657.780	78.200	658.240	88.000	658.590	112.000	658.640	135.800	658.740	159.600
GR	659.140	183.400	659.590	207.200	659.890	231.400	660.890	233.900	661.450	235.600
GR	662.850	238.700	663.050	242.800	664.150	245.200	664.250	253.300	664.650	255.200
GR	666.550	257.600	667.950	287.600	669.610	317.710	668.440	324.400	671.050	361.100
GR	671.950	404.100	673.250	453.000	673.750	490.600	674.050	554.900	674.650	602.100
GR	674.950	611.000	676.450	640.200	.000	.000	.000	.000	.000	.000

1 2- 4-91 15:49:24 PAGE 33

NH	4.000	.050	119.700	.030	328.500	.070	343.600	.040	448.700	.000
X1	1.000	38.000	119.700	328.500	535.000	640.000	585.000	.000	.000	.000
GR	676.490	.000	673.610	17.700	674.900	41.400	675.210	48.000	674.590	55.400
GR	669.010	81.400	665.740	103.100	662.880	113.000	662.910	119.700	661.960	122.500
GR	660.990	147.000	659.190	149.000	659.600	165.700	659.800	182.400	659.600	199.100
GR	659.650	215.800	659.400	232.500	659.250	249.200	659.600	265.900	659.750	282.600
GR	659.700	299.300	660.100	315.800	661.090	317.800	663.540	328.500	663.640	330.700
GR	665.040	335.300	666.240	341.600	666.240	343.600	668.440	356.320	668.740	362.400
GR	670.740	388.100	673.940	406.300	672.740	407.600	673.140	409.000	675.340	433.500
GR	676.040	445.900	675.140	447.300	675.840	448.700	.000	.000	.000	.000
EJ	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

1 2- 4-91 15:49:24 PAGE 34

SECNO	DEPTH	CNSZL	CRIMS	WSELK	EG	HV	HL	OLSSS	BANK	ELEV
Q	GLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT	
TIME	VLOB	VCH	VROB	XLN	XNCH	XNROB	WTN	ELMIN	SSA	
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CCORR	TOWPID	ENDST	
*PROF 1										
CCHV= .100 CCHV= .300										
*SECNO 77.000										
77.00	8.49	647.89	.00	648.00	648.29	.40	.00	.00	644.76	
5230.	32.	4309.	889.	53.	1408.	1038.	.0.	.0.	642.35	
.00	.61	3.06	.86	.070	.028	.070	.000	639.40	35.57	
.000503	0.	0.	0.	0	0	3	.00	458.27	493.84	





FLOW DISTRIBUTION FOR SECNO= 77.00 CWSSEL= 647.89

STA= 36. 59. 247. 291. 336. 383. 442. 494.  
 PER Q= .6 82.4 4.3 3.7 3.1 3.6 2.3  
 AREA= 52.9 1407.6 232.2 211.7 195.5 235.9 162.6  
 VEL= .6 3.1 1.0 .9 .8 .8 .7

\*SECNO 76.000  
 76.00 11.04 648.04 .00 .00 648.74 .70 .35 .09 644.70  
 5230. 6. 5062. 162. 9. 1339. 256. 1231. 231. 644.70  
 .05 .62 3.78 .63 .070 .028 .070 .000 637.00 18.95  
 .000704 600. 600. 600. 2 0 0 0 311.20 330.15

0 FLOW DISTRIBUTION FOR SECNO= 76.00 CWSSEL= 648.04

STA= 19. 24. 190. 317. 330.  
 PER Q= .1 96.8 3.1 .0  
 AREA= 9.4 1339.2 251.9 4.2  
 VEL= .6 3.8 .6 .2

1 2- 4-91 15:49:24

PAGE 35

SECNO	DEPTH	CWSSEL	CRIMS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	OCH	QROB	ALOB	ACH	AROB	HL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	MTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED  
 \*SECNO 75.000

3470 ENCROACHMENT STATIONS= .0 270.0 TYPE= 1 TARGET= 269.999  
 75.00 12.06 648.46 .00 .00 649.19 .73 .44 .00 655.56  
 5230. 0. 4961. 269. 0. 1278. 278. 2212. 395. 643.96  
 .09 .00 3.88 .97 .070 .028 .063 .000 636.40 34.69  
 .000699 655. 635. 550. 2 0 0 .00 235.31 270.00

0 FLOW DISTRIBUTION FOR SECNO= 75.00 CWSSEL= 648.46

STA= 35. 184. 204. 214. 224. 236. 256. 270.  
 PER Q= 94.9 1.7 .8 .9 .7 .6 .4  
 AREA= 1278.0 84.8 42.0 40.9 41.4 47.2 21.7  
 VEL= 3.9 1.1 1.1 1.1 .9 .7 .9

1490 NH CARD USED  
 \*SECNO 74.000

3470 ENCROACHMENT STATIONS= .0 475.0 TYPE= 1 TARGET= 474.999  
 74.00 7.85 649.35 .00 .00 649.67 .32 .43 .04 645.83  
 5230. 313. 4511. 406. 276. 1696. 351. 3827. 658. 643.00  
 .19 1.13 2.66 1.16 .037 .028 .045 .000 641.50 57.94  
 .000386 940. 870. 610. 2 0 0 .00 417.06 475.00

0 1 2- 4-91 15:49:24

PAGE 36

SECNO	DEPTH	CWSSEL	CRIMS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	OCH	QROB	ALOB	ACH	AROB	HL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	MTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 74.00 CWSSEL= 649.35

STA= 58. 126. 150. 379. 412. 475.  
 PER Q= 4.0 2.0 86.3 4.6 3.2  
 AREA= 191.1 85.1 1696.3 181.5 169.1  
 VEL= 1.1 1.2 2.7 1.3 1.0

1490 NH CARD USED  
 \*SECNO 73.000

3470 ENCROACHMENT STATIONS= 660.0 1011.9 TYPE= 1 TARGET= -660.000  
 73.00 8.51 649.51 .00 .00 650.02 .52 .30 .06 645.11  
 5230. 358. 4872. 0. 354. 1484. 0. 5157. 897. 100000.00  
 .25 1.01 3.28 .00 .048 .028 .045 .000 641.00 660.00  
 .000575 655. 640. 600. 2 0 0 0 328.44 988.44

0 FLOW DISTRIBUTION FOR SECNO= 73.00 CWSSEL= 649.51

STA= 660. 752. 794. 1012.  
 PER Q= 4.1 2.7 93.2  
 AREA= 195.0 159.3 1483.6  
 VEL= 1.1 .9 3.3

1490 NH CARD USED  
 \*SECNO 72.000

3470 ENCROACHMENT STATIONS= 740.0 1009.9 TYPE= 1 TARGET= -740.000

1 2- 4-91 15:49:24

PAGE 37

SECNO	DEPTH	CWSSEL	CRIMS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	OCH	QROB	ALOB	ACH	AROB	HL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	MTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

72.00 10.07 649.77 .00 .00 650.48 .71 .40 .06 645.52  
 5230. 221. 5009. 0. 220. 1310. 0. 6155. 1061. 651.19  
 .29 1.01 3.82 .00 .062 .028 .045 .000 639.70 740.00  
 .000781 535. 605. 645. 2 0 0 0 240.17 980.17

0 FLOW DISTRIBUTION FOR SECNO= 72.00 CWSSEL= 649.77

STA= 740. 799. 809. 981.  
 PER Q= 3.2 1.0 95.8  
 AREA= 173.4 46.5 1310.4  
 VEL= 1.0 1.1 3.8

1490 NH CARD USED  
 \*SECNO 71.000



3470 ENCROACHMENT STATIONS= 562.0 920.0 TYPE= 1 TARGET= 358.000  
 71.00 8.62 650.52 .00 .00 650.86 .34 .34 .04 646.04  
 5230. 151. 5038. 41. 167. 1928. 57. 7326. 1248. 646.54  
 .36 .90 2.61 .73 .042 .028 .047 .000 641.90 562.00  
 .000379 545. 645. 710. 2 0 0 .00 358.00 920.00

0 FLOW DISTRIBUTION FOR SECNO= 71.00 CWSSEL= 650.52

STA= 562. 628. 892. 920.  
 PER Q= 2.9 96.3 .8  
 AREA= 167.4 1928.3 56.9  
 VEL= .9 2.6 .7

1 2- 4-91 15:49:24

PAGE 38

SECNO	DEPTH	CWSL	CRWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED

\*SECNO 70.000

70.00 10.28 650.58 .00 .00 651.24 .66 .28 .10 663.87  
 5230. 0. 5102. 128. 0. 1400. 162. 8383. 1421. 647.05  
 .41 .00 3.64 .79 .042 .028 .065 .000 640.30 10.21  
 .000688 605. 570. 530. 2 0 0 .00 250.91 261.12

0 FLOW DISTRIBUTION FOR SECNO= 70.00 CWSSEL= 650.58

STA= 10. 190. 203. 209. 222. 225. 239. 244. 251. 261.  
 PER Q= 10. 97.6 .7 20.6 .8 44.0 10.4 23.7 4.9 8.0 .0  
 AREA= 1399.8 42.6 20.6 .9 .9 .8 23.7 4.9 8.0 7.6  
 VEL= 3.6 .9 .9 .9 .8 .6 4.4 .5 .4

1490 NH CARD USED

\*SECNO 69.000

3470 ENCROACHMENT STATIONS= .0 315.0 TYPE= 1 TARGET= 314.999  
 69.00 8.87 651.27 .00 .00 651.81 .53 .55 .01 649.30  
 5230. 39. 5158. 33. 54. 1583. 48. 9744. 1646. 649.10  
 .48 72 3.26 .69 .047 .028 .047 .000 642.40 21.09  
 .000626 910. 845. 725. 2 0 0 .00 293.91 315.00

0 FLOW DISTRIBUTION FOR SECNO= 69.00 CWSSEL= 651.27

STA= 21. 57. 281. 315.  
 PER Q= .8 98.6 .6  
 AREA= 54.3 1583.2 47.6  
 VEL= .7 3.3 .7

1 2- 4-91 15:49:24

PAGE 39

SECNO	DEPTH	CWSL	CRWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED

\*SECNO 68.000

3265 DIVIDED FLOW

68.00 8.93 651.53 .00 .00 652.14 .61 .31 .02 652.14  
 5230. 0. 5127. 102. 1. 1470. 123. 10511. 1775. 647.40  
 .52 .29 3.49 .83 .047 .028 .065 .000 642.60 64.16  
 .000700 510. 470. 415. 2 0 0 .00 259.75 330.68

0 FLOW DISTRIBUTION FOR SECNO= 68.00 CWSSEL= 651.53

STA= 64. 69. 279. 331.  
 PER Q= .0 98.0 2.0  
 AREA= 1.4 1469.8 122.6  
 VEL= .3 3.5 .8

1490 NH CARD USED

\*SECNO 67.000

3470 ENCROACHMENT STATIONS= .0 298.0 TYPE= 1 TARGET= 297.999  
 67.00 10.37 652.17 .00 .00 652.64 .47 .49 .01 657.30  
 5230. 0. 5170. 60. 0. 1684. 59. 11859. 1983. 649.80  
 .59 .00 3.07 1.00 .047 .028 .037 .000 641.80 41.14  
 .000525 825. 810. 775. 2 0 0 .00 256.85 298.00

0 FLOW DISTRIBUTION FOR SECNO= 67.00 CWSSEL= 652.17

STA= 41. 270. 284. 298.  
 PER Q= 98.9 .7 .4  
 AREA= 1684.3 35.3 24.2  
 VEL= 3.1 1.1 .9

1 2- 4-91 15:49:24

PAGE 40

SECNO	DEPTH	CWSL	CRWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 67.00 CWSSEL= 652.17

STA= 41. 270. 284. 298.  
 PER Q= 98.9 .7 .4  
 AREA= 1684.3 35.3 24.2  
 VEL= 3.1 1.1 .9

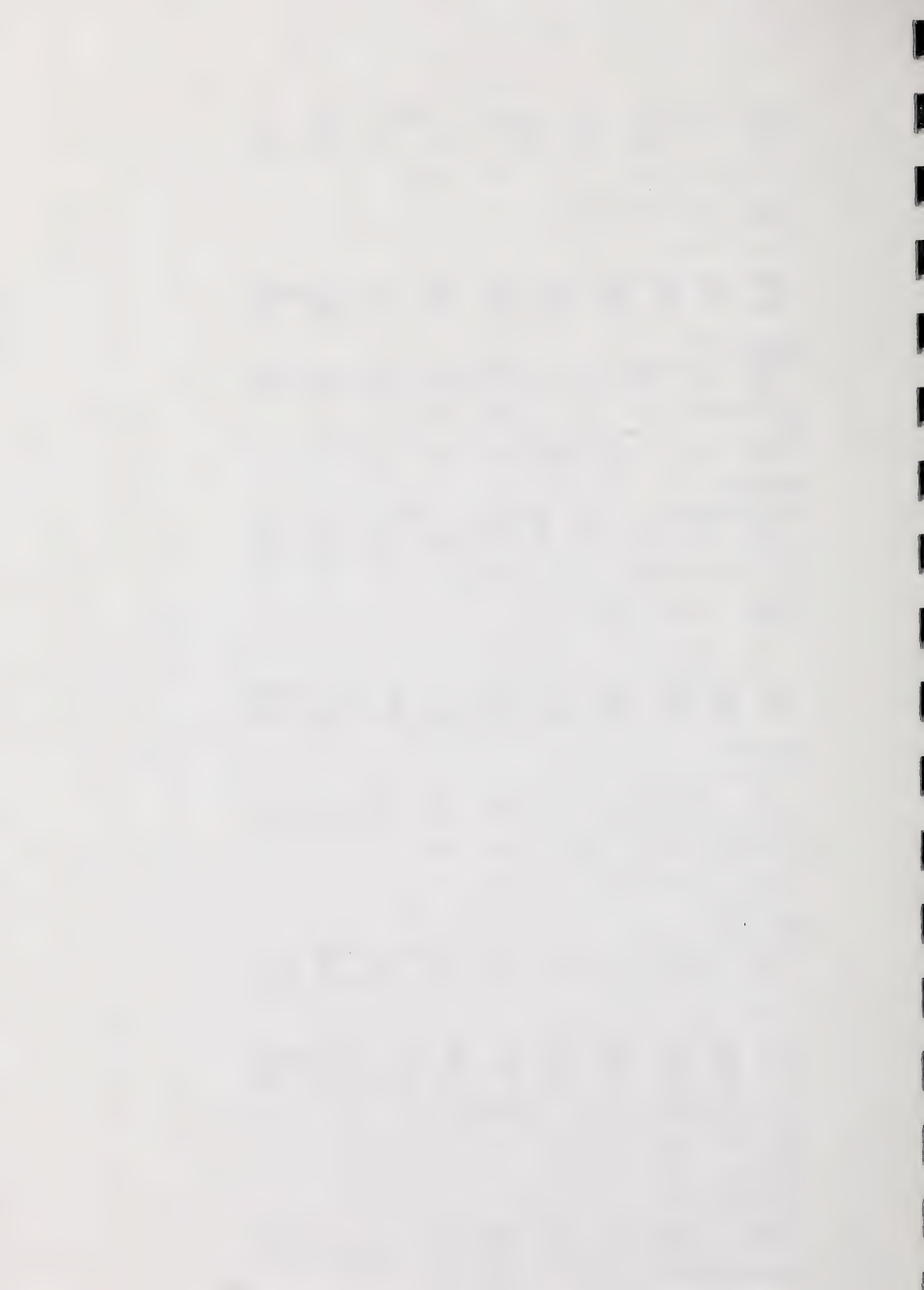
1490 NH CARD USED

\*SECNO 66.000

3265 DIVIDED FLOW

66.00 9.24 652.56 .00 .00 652.96 .40 .32 .00 652.74  
 5230. 5. 4807. 423. 0. 1650. 469. 13086. 2165. 646.40  
 .66 .13 2.91 .90 .047 .028 .062 .000 643.32 26.67  
 .000444 715. 665. 445. 2 0 0 .00 340.24 368.45

0 FLOW DISTRIBUTION FOR SECNO= 66.00 CWSSEL= 652.56



STA= 27. 29. 246. 278. 324. 368.  
 PER Q= .0 91.9 3.7 3.0 1.4  
 AREA= .4 1650.2 185.0 190.7 93.2  
 VEL= .1 2.9 1.0 .8 .8

1490 NH CARD USED  
 \*SECNO 65.000

1 2- 4-91 15:49:24

PAGE 41

SECNO	DEPTH	CWSEL	CRIMS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= .0 700.0 TYPE= 1 TARGET= 699.999  
 65.00 8.79 652.67 .00 .00 653.14 .47 .16 648.84  
 5230. 68. 4577. 585. 85. 1421. 551. 13779. 2288. 646.47  
 .69 .80 3.22 1.06 .065 .028 .049 .000 643.88 306.10  
 .000526 310. 325. 355. 2 0 0 .00 393.90 700.00

0 FLOW DISTRIBUTION FOR SECNO= 65.00 CWSEL= 652.67

STA= 306. 332. 314. 547. 599. 681. 700.  
 PER Q= 1.3 37.5 3.7 3.3 .4  
 AREA= 85.0 1421.2 179.8 168.8 173.0 29.5  
 VEL= .8 3.2 1.1 1.1 1.0 .8

1490 NH CARD USED  
 \*SECNO 64.000

3470 ENCROACHMENT STATIONS= 345.0 649.6 TYPE= 1 TARGET= -345.000  
 64.00 10.95 653.10 .00 .00 653.73 .62 .54 648.93  
 5230. 254. 4976. 0. 277. 1391. 0. 15523. 2596. 659.43  
 .76 .92 3.58 .00 .069 .028 .049 .000 642.15 345.00  
 .000623 810. 940. 1000. 1 0 0 .00 266.88 611.88

0 FLOW DISTRIBUTION FOR SECNO= 64.00 CWSEL= 653.10

STA= 345. 422. 443. 618.  
 PER Q= 3.0 1.8 35.1  
 AREA= 185.3 91.3 1390.7  
 VEL= .9 1.0 3.6

1 2- 4-91 15:49:24

PAGE 42

SECNO	DEPTH	CWSEL	CRIMS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED  
 \*SECNO 63.000

3470 ENCROACHMENT STATIONS= 863.0 1162.6 TYPE= 1 TARGET= -863.000  
 63.00 10.61 653.58 .00 .00 654.16 .58 .42 647.40  
 5230. 546. 4684. 0. 483. 1323. 0. 16698. 2779. 654.20  
 .82 1.13 3.54 .00 .054 .028 .049 .000 642.97 863.00  
 .000598 575. 705. 775. 2 0 0 .00 293.89 1156.89

0 FLOW DISTRIBUTION FOR SECNO= 63.00 CWSEL= 653.58

STA= 863. 937. 985. 999. 1158.  
 PER Q= 4.1 4.5 1.9 89.6  
 AREA= 179.1 224.4 79.7 1323.1  
 VEL= 1.2 1.0 1.2 3.5

1490 NH CARD USED  
 \*SECNO 62.000

3470 ENCROACHMENT STATIONS= 420.0 759.6 TYPE= 1 TARGET= -420.000  
 62.00 8.55 654.05 .00 .00 654.56 .51 .40 650.06  
 5230. 93. 5082. 55. 127. 1586. 53. 17955. 2976. 649.96  
 .88 .73 3.20 1.04 .053 .028 .047 .000 645.50 420.00  
 .000511 570. 730. 825. 2 0 0 .00 287.32 707.32

0 FLOW DISTRIBUTION FOR SECNO= 62.00 CWSEL= 654.05

STA= 420. 488. 687. 707.  
 PER Q= 1.8 97.2 1.0  
 AREA= 126.5 1586.0 52.7  
 VEL= .7 3.2 1.0

1490 NH CARD USED  
 \*SECNO 61.000

3470 ENCROACHMENT STATIONS= 396.0 750.0 TYPE= 1 TARGET= 354.000  
 61.00 7.77 654.43 .00 .00 654.81 .38 .24 649.70  
 5230. 160. 4902. 168. 230. 1745. 139. 18932. 3136. 649.90  
 .94 .69 2.81 1.21 .064 .028 .045 .000 646.66 396.00  
 .000442 470. 505. 540. 2 0 0 .00 354.00 750.00

0 FLOW DISTRIBUTION FOR SECNO= 61.00 CWSEL= 654.43

STA= 396. 478. 718. 750.  
 PER Q= 3.1 93.7 3.2  
 AREA= 230.3 1744.9 139.2  
 VEL= .7 2.8 1.2

1490 NH CARD USED  
 \*SECNO 60.000

PAGE 43





PAGE 44

FLOW DISTRIBUTION FOR SECNO= 60.00 CWSL= 654.69

1490 NH CARD USED

FLOW DISTRIBUTION FOR SECNO= 59.00 CWSSEL= 654.01

1490 NH CARD USED

2- 4-91 15:49:24

FLOW DISTRIBUTION FOR SECNO= 50.00 CWSL= 655.35

1490 NH CARD USED

FLOW DISTRIBUTION FOR SECNO= 57.00 CWSL= 655.64

1490 NH CARD USED

3470 ENCROACHMENT STATIONS= 390.0 695.1 TYPE= 1 TARGET= -390.000

2- 4-91 15:49:24

PAGE 46

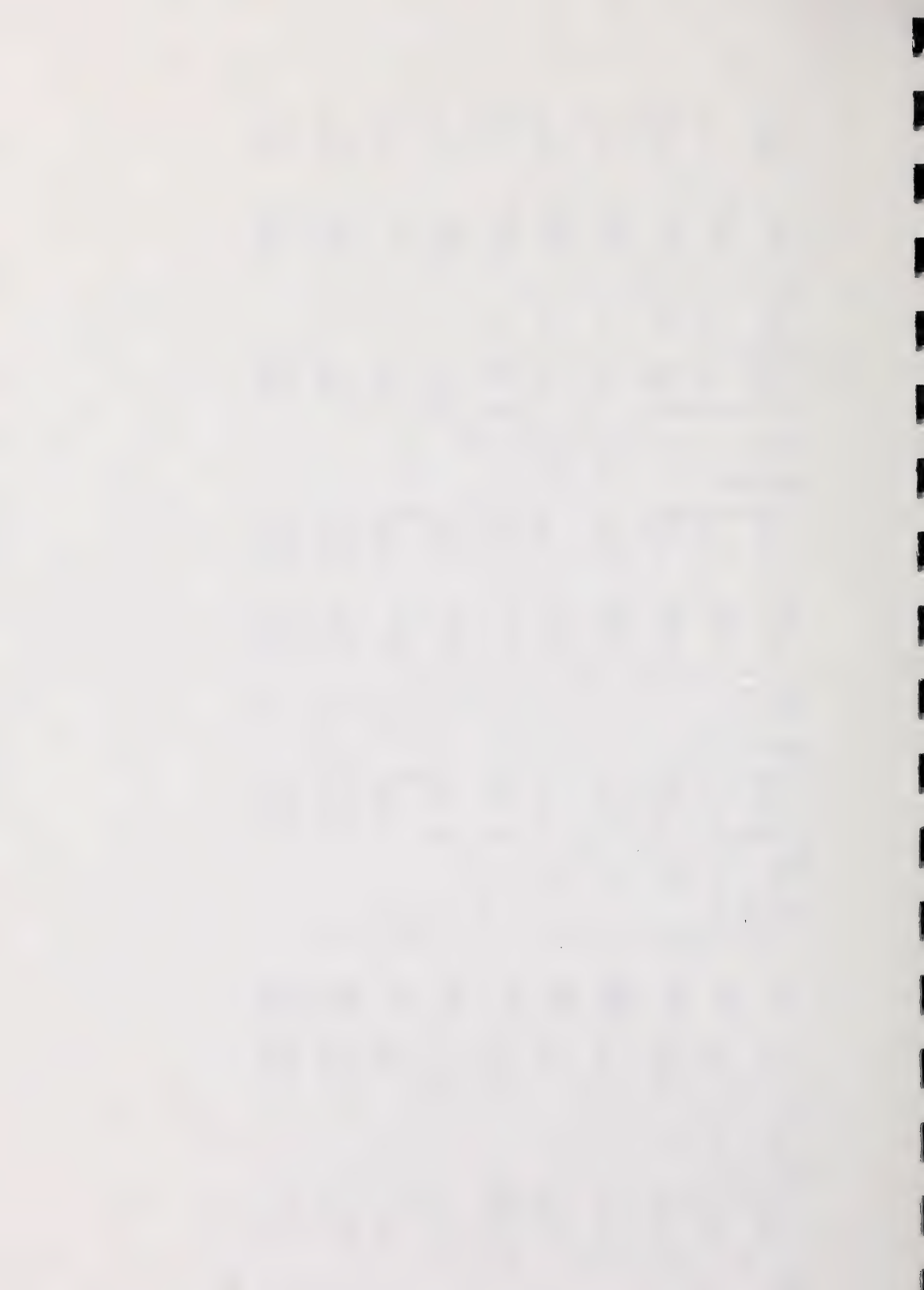
56.00	8.98	656.08	.00	.00	656.53	.45	.45	.00	651.78
5230.	130.	5100.	0.	172.	1700.	0.	24988.	4105.	661.68
1.23	.76	3.00	.00	.065	.028	.043	.000	647.10	395.55
.000492	1020.	960.	890.	2	0	0	.00	286.40	681.95

FLOW DISTRIBUTION FOR SECNO= 56.00 CWSRL= 656.00

1490 NH CARD USED

FLOW DISTRIBUTION FOR SECNO= 55.00 CWSL= 656.69

STA= 300. 428. 901.  
PER Q= 3.5 96.5



AREA= 311.4 2866.4  
VEL= .6 1.8

1 2- 4-91 15:49:24 PAGE 47

SECNO	DEPTH	CWSEL	CRIMS	WSELK	EG	HV	HL	OLOSS	BANK	ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT	
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA	
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST	

1490 NH CARD USED  
\*SECNO 54.000

3301 HV CHANGED MORE THAN 5VINS

3470 ENCROACHMENT STATIONS=	588.6	836.7	TYPE=	1	TARGET=	-588.600			
54.00	12.74	656.59	.00	.00	657.29	.69	.28	.16	652.47
5230.	338.	4880.	12.	339.	1280.	13.	29076.	4738.	652.67
1.44	1200	3.91	.93	.064	.028	.047	.000	643.85	592.87
.000607	520.	835.	885.	2	0	0	.00	235.64	828.51

0 FLOW DISTRIBUTION FOR SECNO= 54.00 CWSEL= 656.59

STA=	593.	649.	683.	823.	829.
PER Q=	3.5	3.0	93.3	.2	
AREA=	185.0	153.7	1279.7	13.3	
VEL=	1.0	1.0	3.8	.9	

1490 NH CARD USED  
\*SECNO 53.000

3470 ENCROACHMENT STATIONS=	239.2	754.4	TYPE=	1	TARGET=	560.000			
53.00	8.59	657.25	.00	.00	657.68	.43	.37	.03	650.95
5230	320.	4443.	466.	260.	1416.	664.	30430.	4994.	652.35
1.51	1.23	3.14	.70	.047	.028	.066	.000	648.66	254.08
.000497	440.	685.	885.	2	0	0	.00	500.32	754.40

0 1 2- 4-91 15:49:24 PAGE 48

SECNO	DEPTH	CWSEL	CRIMS	WSELK	EG	HV	HL	OLOSS	BANK	ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT	
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA	
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST	

FLOW DISTRIBUTION FOR SECNO= 53.00 CWSEL= 657.25

STA=	254.	331.	511.	546.	697.	754.
PER Q=	6.1	85.0	3.6	4.0	1.3	
AREA=	260.4	1416.3	108.2	435.1	120.2	
VEL=	1.2	3.1	1.7	.5	.5	

1490 NH CARD USED  
\*SECNO 52.000

3470 ENCROACHMENT STATIONS=	.0	736.0	TYPE=	1	TARGET=	735.999			
52.00	8.49	657.68	.00	.00	658.00	.32	.31	.01	659.46
5230.	0.	5185.	45.	0.	2056.	187.	31991.	5316.	656.16
1.58	.00	2.52	.24	.047	.029	.134	.000	649.19	317.08
.000430	640.	665.	760.	2	0	0	.00	418.92	736.00

0 FLOW DISTRIBUTION FOR SECNO= 52.00 CWSEL= 657.68

STA=	317.	627.	736.
PER Q=	99.1	.9	
AREA=	2056.1	187.2	
VEL=	2.5	.2	

1490 NH CARD USED  
\*SECNO 51.000

3470 ENCROACHMENT STATIONS=	.0	400.0	TYPE=	1	TARGET=	399.999
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1 2- 4-91 15:49:24 PAGE 49

SECNO	DEPTH	CWSEL	CRIMS	WSELK	EG	HV	HL	OLOSS	BANK	ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT	
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA	
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST	

51.00	8.59	657.99	.00	.00	658.53	.54	.46	.06	654.10
5230.	42.	4970.	218.	40.	1495.	534.	33917.	5664.	653.30
1.66	1.06	3.32	.41	.047	.028	.133	.000	649.40	18.77
.000595	1000.	915.	780.	2	0	0	.00	381.23	400.00

0 FLOW DISTRIBUTION FOR SECNO= 51.00 CWSEL= 657.99

STA=	19.	34.	233.	346.	400.
PER Q=	.8	95.0	3.3	.9	
AREA=	40.0	1495.2	412.0	121.6	
VEL=	1.1	3.3	.4	.4	

1490 NH CARD USED  
\*SECNO 50.000

3470 ENCROACHMENT STATIONS=	.0	415.0	TYPE=	1	TARGET=	414.999			
50.00	9.08	658.08	.00	.00	658.62	.53	.09	.00	655.91
5230.	2.	5000.	228.	4.	1510.	569.	34220.	5718.	653.71
1.67	.50	3.31	.40	.047	.028	.140	.000	649.00	28.14
.000598	175.	155.	120.	1	0	0	.00	386.85	415.00

0 FLOW DISTRIBUTION FOR SECNO= 50.00 CWSEL= 658.08

STA=	28.	32.	236.	320.	415.
PER Q=	.0	95.6	3.1	1.3	
AREA=	4.0	1510.5	348.6	220.4	
VEL=	.5	3.3	.5	.3	

1



SECNO	DEPTH	CWSEL	CRWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	MTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED  
\*SECNO 49.000

3265 DIVIDED FLOW

49.00	9.48	658.38	.00	.00	659.01	.63	.37	.03	654.20
5230.	11.	5060.	159.	14.	1413.	431.	35360.	5922.	654.20
1.72	.78	3.58	.37	.047	.028	.138	.000	648.90	18.90
.000611	675.	610.	485.	2	0	0	.00	353.52	385.87

0 FLOW DISTRIBUTION FOR SECNO= 49.00 CWSEL= 658.38

STA=	19.	25.	198.	384.	386.
PER Q=	.2	.96.8	3.0	.0	
AREA=	13.6	1413.2	429.9	.6	
VEL=	.8	3.6	.4	.3	

1490 NH CARD USED  
\*SECNO 48.000

3470 ENCROACHMENT STATIONS=	340.0	938.8	TYPE=	1	TARGET=	-340.000
48.00	7.57	659.17	.00	.00	659.52	.34
5230.	197.	4995.	37.	680.	1878.	112.
1.83	.29	2.66	.33	.140	.028	.140
.000409	1025.	965.	830.	2	0	0

0 FLOW DISTRIBUTION FOR SECNO= 48.00 CWSEL= 659.17

1 2- 4-91 15:49:24

SECNO	DEPTH	CWSEL	CRWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	MTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 48.00 CWSEL= 659.17

STA=	340.	549.	585.	851.	889.
PER Q=	3.0	.7	95.5	.7	
AREA=	559.4	120.9	1878.4	112.2	
VEL=	.3	.3	2.7	.3	

1490 NH CARD USED  
\*SECNO 47.000

3470 ENCROACHMENT STATIONS=	500.0	1263.1	TYPE=	1	TARGET=	-500.000
47.00	8.04	659.44	.00	.00	659.80	.35
5230.	296.	4924.	0.	1042.	1819.	0
1.90	.28	2.71	.00	.140	.028	.140
.000446	430.	650.	695.	2	0	0

0 FLOW DISTRIBUTION FOR SECNO= 47.00 CWSEL= 659.44

STA=	500.	864.	956.	1220.
PER Q=	3.2	2.4	94.3	
AREA=	695.4	347.0	1818.7	
VEL=	.2	.4	2.7	

1490 NH CARD USED  
\*SECNO 46.000

3470 ENCROACHMENT STATIONS= 600.0 1248.6 TYPE= 1 TARGET= -600.000

1 2- 4-91 15:49:24

SECNO	DEPTH	CWSEL	CRWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	MTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

46.00	14.11	659.41	.00	.00	660.13	.72	.23	.11	655.40
5230.	426.	4426.	378.	1179.	1088.	237.	40030.	6857.	654.70
1.93	.36	4.07	1.59	.140	.028	.047	.000	645.30	600.00
.000641	165.	445.	505.	2	0	0	.00	626.48	1226.48

0 FLOW DISTRIBUTION FOR SECNO= 46.00 CWSEL= 659.41

STA=	600.	950.	1065.	1176.	1195.	1216.	1226.
PER Q=	5.1	3.0	84.6	3.1	3.7	.4	
AREA=	790.1	388.8	1087.6	100.1	114.6	22.4	
VEL=	.3	.4	4.1	1.6	1.7	.8	

1490 NH CARD USED  
\*SECNO 45.000

3470 ENCROACHMENT STATIONS=	600.0	1363.8	TYPE=	1	TARGET=	-600.000
45.00	8.27	660.07	.00	.00	660.30	.23
5230.	392.	4811.	28.	1362.	2158.	63.
1.97	.29	2.23	.44	.140	.028	.065
.000287	145.	305.	430.	2	0	0

0 FLOW DISTRIBUTION FOR SECNO= 45.00 CWSEL= 660.07

STA=	600.	867.	995.	1014.	1317.	1351.
PER Q=	3.6	3.2	.7	92.0	.5	
AREA=	729.3	533.7	99.0	2158.3	63.3	
VEL=	.3	.3	.4	2.2	.4	

1 2- 4-91 15:49:24

SECNO	DEPTH	CWSEL	CRWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	MTN	ELMIN	SSTA





SLOPE KLOBL KLCH KLOBR ITRIAL IDC ICONT CORAR TOPWID ENDST

1490 NH CARD USED  
\*SECNO 44.000

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 450.0 1210.0 TYPE= 1 TARGET= 760.000  
44.00 10.47 660.07 .00 .00 660.68 .61 .27 .11 655.82  
5230. 211. 4715. 303. 616. 1295. 582. 42615. 7400. 656.44  
2.03 .34 3.64 .52 .140 .028 .096 .000 649.60 450.00  
.000567 353. 695. 900. 2 0 0 .00 627.15 1202.93

0 FLOW DISTRIBUTION FOR SECNO= 44.00 CWSL= 660.07

STA= 450. 670. 685. 829. 1101. 1203.  
PER Q= 3.5 .5 90.2 3.4 2.4  
AREA= 554.9 61.0 1295.0 253.2 328.9  
VEL= .3 .4 3.6 .7 .4

1490 NH CARD USED  
\*SECNO 43.000

3470 ENCROACHMENT STATIONS= 170.0 650.0 TYPE= 1 TARGET= 480.000  
43.00 7.22 660.42 .00 .00 660.95 .53 .25 .00 656.47  
5230. 80 5042. 108. 220. 1538. 357. 43561. 7628. 657.05  
2.06 .36 3.28 .30 .140 .028 .150 .000 653.20 170.00  
.000676 395. 410. 425. 2 0 0 .00 480.00 650.00

0  
1 2- 4-91 15:49:24

PAGE 54

SECNO	DEPTH	CWSL	CRWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	MTN	ELMIN	SSTA
SLOPE	KLOBL	KLCH	KLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 43.00 CWSL= 660.42

STA= 170. 258. 489. 650.  
PER Q= 1.5 96.4 2.1  
AREA= 220.5 1537.8 357.0  
VEL= .4 3.3 .3

1490 NH CARD USED  
\*SECNO 42.000

3470 ENCROACHMENT STATIONS= .0 300.0 TYPE= 1 TARGET= 299.999  
42.00 3.74 660.74 .00 .00 661.39 .65 .41 .04 660.38  
5230. 0. 5144. 85. 4. 1424. 221. 44713. 7858. 656.38  
2.11 .21 3.61 .39 .037 .028 .140 .000 651.00 19.77  
.000642 640. 620. 560. 2 0 0 .00 280.23 300.00

0 FLOW DISTRIBUTION FOR SECNO= 42.00 CWSL= 660.74

STA= 20. 54. 230. 300.  
PER Q= .0 98.3 1.6  
AREA= 4.4 1424.1 221.1  
VEL= .2 3.6 .4

1490 NH CARD USED  
\*SECNO 41.000

3470 ENCROACHMENT STATIONS= .0 220.0 TYPE= 1 TARGET= 219.999

1 2- 4-91 15:49:24

PAGE 55

SECNO	DEPTH	CWSL	CRWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	MTN	ELMIN	SSTA
SLOPE	KLOBL	KLCH	KLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

41.00 10.46 661.06 .00 .00 661.71 .65 .32 .00 660.47  
5230. 1. 5176. 53. 4. 1441. 83. 45526. 7982. 656.05  
2.15 .29 3.59 .64 .037 .028 .093 .000 650.60 11.13  
.000593 565. 520. 430. 0 0 0 .00 208.87 220.00

0 FLOW DISTRIBUTION FOR SECNO= 41.00 CWSL= 661.06

STA= 11. 29. 198. 220.  
PER Q= .0 99.0 1.0  
AREA= 4.1 1440.7 83.2  
VEL= .3 3.6 .6

1490 NH CARD USED  
\*SECNO 40.000

40.00 8.74 661.64 .00 .00 661.97 .32 .22 .03 657.72  
5230. 19. 5211. 8. 63. 2061. 0. 46456. 8112. 661.52  
2.21 .30 2.53 .09 .140 .028 .047 .000 652.90 57.53  
.000341 555. 510. 450. 2 0 0 .00 301.62 359.16

0 FLOW DISTRIBUTION FOR SECNO= 40.00 CWSL= 661.64

STA= 58. 77. 350. 359.  
PER Q= .4 99.6 .0  
AREA= 62.6 2060.7 .9  
VEL= .3 2.5 .0

1 2- 4-91 15:49:24

PAGE 56

SECNO	DEPTH	CWSL	CRWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	MTN	ELMIN	SSTA
SLOPE	KLOBL	KLCH	KLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= .300 CEHV= .500  
\*SECNO 39.000



3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELREA= 664.60 ELREA= 662.90

39.00	8.97	661.67	.00	.00	662.08	.41	.07	.04	664.60
5230.	0.	5230.	0.	0.	1839.	0.	46793.	8159.	662.90
2.22	.00	2.84	.00	.050	.028	.050	.000	652.70	12.91
.000438	180.	170.	170.	2	0	0	.00	244.69	257.60

0 FLOW DISTRIBUTION FOR SECNO= 39.00 CWSL= 661.67

STA= 13. 261.  
 PER Q= 100.0  
 AREA= 1839.3  
 VEL= 2.8

\*SECNO 38.200

3265 DIVIDED FLOW

3370 NORMAL BRIDGE, NRD= 4 MIN ELTRD= 665.00 MAX ELRC= 666.14

38.20	8.95	661.65	.00	.00	662.09	.44	.00	.01	664.75
5230.	0.	5230.	0.	0.	1781.	0.	46795.	8159.	662.81
2.22	.00	2.94	.00	.050	.024	.050	.000	652.70	12.92
.000554	1.	1.	1.	1	0	0	.00	237.32	257.58

0  
 1 2- 4-91 15:49:24

PAGE 57

SECNO	DEPTH	CWSL	CRWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	MTN	ELMIN	SSTA
SLOPE	KLOBL	KLCH	KLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 38.20 CWSL= 661.65

STA= 13. 261.  
 PER Q= 100.0  
 AREA= 1781.0  
 VEL= 2.9

\*SECNO 38.100

3265 DIVIDED FLOW

3370 NORMAL BRIDGE, NRD= 5 MIN ELTRD= 665.00 MAX ELRC= 665.77

38.10	8.85	661.65	.00	.00	662.12	.48	.01	.02	664.75
5230.	0.	5230.	0.	0.	1709.	0.	46833.	8164.	662.81
2.23	.00	3.06	.00	.050	.024	.050	.000	652.80	12.57
.000631	22.	22.	22.	1	0	0	.00	238.02	257.90

0 FLOW DISTRIBUTION FOR SECNO= 38.10 CWSL= 661.65

STA= 13. 261.  
 PER Q= 100.0  
 AREA= 1709.0  
 VEL= 3.1

1 2- 4-91 15:49:24

PAGE 58

SECNO	DEPTH	CWSL	CRWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	MTN	ELMIN	SSTA
SLOPE	KLOBL	KLCH	KLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

\*SECNO 37.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELREA= 664.46 ELREA= 662.96

37.00	8.89	661.69	.00	.00	662.13	.44	.00	.01	664.46
5230.	0.	5230.	0.	0.	1772.	0.	46835.	8164.	662.96
2.23	.00	2.95	.00	.050	.028	.050	.000	652.80	12.49
.000500	1.	1.	1.	2	0	0	.00	245.35	257.84

0 FLOW DISTRIBUTION FOR SECNO= 37.00 CWSL= 661.69

STA= 12. 261.  
 PER Q= 100.0  
 AREA= 1772.3  
 VEL= 3.0

1490 NH CARD USED

\*SECNO 36.000

3280 CROSS SECTION 36.00 EXTENDED 3.63 METERS

36.00	9.49	661.79	.00	.00	662.19	.40	.04	.01	657.50
5230.	85.	5087.	58.	230.	1798.	58.	47019.	8190.	659.06
2.23	.37	2.83	1.01	.140	.028	.037	.000	652.30	186.01
.000381	105.	95.	95.	2	0	0	.00	290.69	476.70

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 1 2- 4-91 15:49:24

PAGE 59

SECNO	DEPTH	CWSL	CRWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	MTN	ELMIN	SSTA
SLOPE	KLOBL	KLCH	KLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 36.00 CWSL= 661.79

STA= 186. 240. 459. 477.  
 PER Q= 1.6 97.3 1.1  
 AREA= 229.9 1798.3 57.6  
 VEL= .4 2.8 1.0

\*SECNO 35.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELREA= 665.70 ELREA= 665.70





35.00	10.29	661.89	.00	.00	662.24	.35	.04	.01	664.20
5230.	0.	5230.	0.	0.	1998.	0.	47215.	8218.	664.37
2.25	.00	2.62	.00	.050	.028	.050	.000	651.60	4.27
.000439	105.	95.	95.	2	0	0	.00	301.13	305.40

0 FLOW DISTRIBUTION FOR SECNO= 35.00 CWSEL= 661.89

STA= 4. 310.  
 PER Q= 100.0  
 AREA= 1997.6  
 VEL= 2.6

\*SECNO 34.200

3265 DIVIDED FLOW

1 2- 4-91 15:49:24

PAGE 60

SECNO	DEPTH	CWSEL	CRWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	MTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3370 NORMAL BRIDGE,NRD= 7 MIN ELTRD= 665.70 MAX ELLC= 664.50

34.20	10.26	661.86	.00	.00	662.28	.42	.00	.03	664.40
5230.	0.	5230.	0.	0.	1832.	0.	47216.	8219.	664.40
2.25	.00	2.85	.00	.050	.025	.050	.000	651.60	4.38
.000637	1.	1.	1.	2	0	0	.00	272.72	301.10

0 FLOW DISTRIBUTION FOR SECNO= 34.20 CWSEL= 661.86

STA= 4. 310.  
 PER Q= 100.0  
 AREA= 1831.9  
 VEL= 2.9

\*SECNO 34.100

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 9 MIN ELTRD= 665.50 MAX ELLC= 664.40

34.10	10.37	661.87	.00	.00	662.29	.42	.00	.00	662.70
5230.	0.	5230.	0.	0.	1812.	0.	47244.	8223.	664.04
2.25	.00	2.89	.00	.050	.025	.050	.000	651.50	14.23
.000653	15.	15.	15.	0	0	0	.00	267.89	309.12

0 FLOW DISTRIBUTION FOR SECNO= 34.10 CWSEL= 661.87

1 2- 4-91 15:49:24

PAGE 61

SECNO	DEPTH	CWSEL	CRWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	MTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 34.10 CWSEL= 661.87

STA= 14. 313.  
 PER Q= 100.0  
 AREA= 1812.2  
 VEL= 2.9

\*SECNO 33.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 665.70 ELREA= 665.70

33.00	10.47	661.97	.00	.00	662.31	.35	.00	.02	662.70
5230.	0.	5230.	0.	0.	2006.	0.	47246.	8223.	664.04
2.25	.00	2.61	.00	.050	.028	.050	.000	651.50	13.29
.000422	1.	1.	1.	2	0	0	.00	296.01	309.30

0 FLOW DISTRIBUTION FOR SECNO= 33.00 CWSEL= 661.97

STA= 13. 313.  
 PER Q= 100.0  
 AREA= 2005.9  
 VEL= 2.6

1490 NH CARD USED

\*SECNO 32.000

32.00	10.15	661.95	.00	.00	662.42	.48	.04	.07	659.32
5230.	103.	5094.	33.	278.	1641.	42.	47444.	8252.	659.93
2.25	.37	3.10	.78	.140	.028	.037	.000	651.80	206.85
.000436	100.	100.	100.	2	0	0	.00	292.39	499.25

0 FLOW DISTRIBUTION FOR SECNO= 32.00 CWSEL= 661.95

1 2- 4-91 15:49:24

PAGE 62

SECNO	DEPTH	CWSEL	CRWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	MTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 32.00 CWSEL= 661.95

STA= 207. 282. 472. 499.  
 PER Q= 2.0 97.4 .6  
 AREA= 277.6 1640.8 41.9  
 VEL= .4 3.1 .8

\*SECNO 31.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 665.14 ELREA= 662.74

31.00	10.57	662.07	.00	.00	662.48	.41	.04	.02	665.14
5230.	0.	5230.	0.	0.	1841.	0.	47608.	8277.	662.74
2.26	.00	2.84	.00	.050	.028	.050	.000	651.50	11.87



0 .000519 100. 85. 85. 2 0 0 .00 277.58 289.44  
 FLOW DISTRIBUTION FOR SECTO= 31.00 CWSL= 662.07  
 STA= 12. 291.  
 PER Q= 100.0  
 AREA= 1840.7  
 VEL= 2.8

\*SECTO 30.200

3265 DIVIDED FLOW

1 2- 4-91 15:49:24

PAGE 63

SECTO	DEPTH	CWSL	CRWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XLN	XNCH	XNR	MTN	ELMIN	SSTA
SLOPE	XLOB	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3370 NORMAL BRIDGE,NRD= 5 MIN ELTRD= 666.20 MAX ELLC= 666.35

30.20	10.55	662.05	.00	.00	662.50	.45	.00	.02	665.14
5230.	0.	5230.	0.	0.	1760.	0.	47609.	8277.	662.74
2.26	.00	2.97	.00	.050	.026	.050	.000	651.50	11.87
.000655	1.	1.	1.	1	0	0	.00	267.55	289.42

0 FLOW DISTRIBUTION FOR SECTO= 30.20 CWSL= 662.05

STA= 12. 291.  
 PER Q= 100.0  
 AREA= 1760.1  
 VEL= 3.0

\*SECTO 30.100

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 3 MIN ELTRD= 666.20 MAX ELLC= 666.20

30.10	10.58	662.03	.00	.00	662.54	.51	.00	.03	664.83
5230.	0.	5230.	0.	0.	1652.	0.	47628.	8280.	666.20
2.27	.00	3.17	.00	.050	.026	.050	.000	651.45	9.80
.000790	11.	11.	11.	2	0	0	.00	261.52	281.32

0 1 2- 4-91 15:49:24

PAGE 64

SECTO	DEPTH	CWSL	CRWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XLN	XNCH	XNR	MTN	ELMIN	SSTA
SLOPE	XLOB	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECTO= 30.10 CWSL= 662.03

STA= 10. 291.  
 PER Q= 100.0  
 AREA= 1651.9  
 VEL= 3.2

\*SECTO 29.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 664.90 ELREA= 666.20

29.00	10.65	662.10	.00	.00	662.56	.46	.00	.02	664.90
5230.	0.	5230.	0.	0.	1748.	0.	47630.	8281.	666.20
2.27	.00	2.99	.00	.050	.028	.050	.000	651.45	9.79
.000598	1.	1.	1.	2	0	0	.00	271.72	281.52

0 FLOW DISTRIBUTION FOR SECTO= 29.00 CWSL= 662.10

STA= 10. 291.  
 PER Q= 100.0  
 AREA= 1748.1  
 VEL= 3.0

1490 NH CARD USED

\*SECTO 28.000

1 3470 ENCROACHMENT STATIONS= 204.0 445.0 TYPE= 1 TARGET= 241.000

PAGE 65

SECTO	DEPTH	CWSL	CRWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XLN	XNCH	XNR	MTN	ELMIN	SSTA
SLOPE	XLOB	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

28.00	10.85	662.15	.00	.00	662.68	.53	.08	.04	657.64
5230.	42.	5176.	12.	132.	1600.	18.	47902.	8321.	660.74
2.28	.32	3.23	.67	.140	.028	.037	.000	651.30	204.00
.000447	170.	155.	155.	2	0	0	.00	241.00	445.00

0 FLOW DISTRIBUTION FOR SECTO= 28.00 CWSL= 662.15

STA= 204. 254. 433. 445.  
 PER Q= .8 99.0  
 AREA= 131.8 1600.3 17.8  
 VEL= .3 3.2 .7

CCHV= .100 CEHV= .300

1490 NH CARD USED

\*SECTO 27.000

3470 ENCROACHMENT STATIONS= 245.4 654.4 TYPE= 1 TARGET= -253.000

27.00	9.50	662.50	.00	.00	662.88	.38	.19	.02	656.61
5230.	113.	5117.	0.	238.	1863.	0.	48830.	8445.	668.49
2.33	.47	2.75	.00	.103	.028	.037	.000	653.00	245.41



PAGE 66

SECNO	DEPTH	CWSEL	CRWS	WSELK	EG	HV	HL	GLOSS	BANK	ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT	
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	MTN	ELMIN	SSTA	
SLOPE	KLOBL	KLCH	KLOBR	IFRIAL	IDC	ICONT	CGRAN	TOPPID	ENDST	

1490 NH CARD USED

\*SECNO 26.000

26.00	9.21	662.71	.00	.00	662.99	.28	.10	.01	659.21
5230.	33.	5195.	2.	132.	2225.	12.	49584.	8545.	658.69
2.37	.25	2.33	.18	.145	.028	.140	.000	653.50	91.52
.000259	310.	340.	355.	2	0	0	.00	323.46	414.99

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0
FLOW DISTRIBUTION FOR SECNO=      26.00      CWSSEL=      662.71

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STA=	92.	139.	409.	415.
PER Q=	.6	99.3		.0
AREA=	132.0	2224.9	11.6	
VEL=	.2	2.3	.2	

1490 NH CARD USED

\*SECNO 25.000

[illegible]

FLOW DISTRIBUTION FOR SECNO= 25.00 CWSL= 662.92

STA=	5.	13.	242.	341.	359.
PER Q=	.2	96.8	3.1	.0	
AREA=	18.6	1911.4	450.2	9.5	
VEL=	.5	2.6	.4	.0	

PAGE 67

SECNO	DEPTH	CWSL	CRWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	KXNH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	IFR1AL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED

\*SECNO 24.000

3470 ENCROACHMENT STATIONS=	.0	308.0	TYPE=	1	TARGET=	307.999	
24.00	10.96	663.06	.00	.00	663.46	.39	.17
52.00	.41	509.99	.90	.51	180.08	266.	52852.
2.52	.80	2.82	.34	.047	.028	.140	.000
.000346	540.	515.	460.	0	0	0	0
						236.94	308.00

FLOW DISTRIBUTION FOR SECNO= 24.00 CWSEL= 663.06

STA=	11.	33.	238.	308.
PER Q=	.8	97.5	1.7	
AREA=	51.2	1808.3	266.2	
VEL=	.8	2.8	.3	

1490 NH CARD USED

\*SECNO 23.000

23.00	13.60	663.10	.00	.00	663.73	.63	.20	.07	656.87
5230.	75.	4827.	328.	102.	1317.	342.	53824.	9143.	655.95
2.56	.73	3.67	.96	.083	.028	.065	.000	649.50	95.66
.0000480	510.	500.	500.	2	0	0	.00	231.21	326.87

FLOW DISTRIBUTION FOR SECNO= 23.00 CWSEL= 663.10

STA=	96.	122.	250.	304.	327.
PER Q=	1.4	92.3	5.4		.9
AREA=	102.5	1317.0	277.6	64.3	
VEL=	.7	3.7	1.0		.7

PAGE 68

SECNO	DEPTH	CWSEL	CRWS	WSELK	EG	HV	HL	OLOSS	BANK	ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT	
TIME	VLOB	VCH	VROB	XNL	KXCH	KNR	WTN	ELMIN	SSTA	
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST	

CCHV= .300 CEHV= .500

\*SECNO 22.000

3495	OVERBANK AREA ASSUMED NON-EFFECTIVE, ELREA=	668.71	ELREA=	666.50
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22.00	12.63	663.53	.00	.00	663.87	.34	.05	.09	668.71
5230.	0.	5230.	0.	0.	2027.	0.	54052.	9172.	666.50
2.57	.00	2.58	.00	.050	.028	.050	.000	650.90	88.65
.000319	120.	120.	120.	2	0	0	.00	244.26	332.91

FLOW DISTRIBUTION FOR SECNO= 22.00 CWSL= 663.53

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STA=      89.      339.
PER Q=    100.0
AREA=    2026.5
VEL=      2.6
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\*SECNO 22.100





## 3265 DIVIDED FLOW

22.10	12.62	663.52	.00	.00	663.98	.36	.00	.01	668.71
5230.	0.	5230.	0.	0.	1957.	0.	54054.	9172.	666.50
2.57	.00	2.67	.00	.050	.024	.050	.000	650.90	98.67
.000452	1.	1.	1.	1	0	0	.00	236.49	332.90

0

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2- 4-91 15:49:24

PAGE 69

SECNO	DEPTH	CWSEL	CRWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	KLOBL	KLCH	KLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 22.10 CWSEL= 663.52

STA= 89. 339.

PER Q= 100.0

AREA= 1957.1

VEL= 2.7

\*SECNO 22.200

## 3265 DIVIDED FLOW

22.20	12.13	663.53	.00	.00	663.90	.37	.02	.00	668.61
5230.	0.	5230.	0.	0.	1945.	0.	54118.	9180.	666.50
2.57	.00	2.69	.00	.050	.024	.050	.000	651.40	16.16
.000460	33.	33.	33.	0	0	0	.00	238.38	262.28

0

0

FLOW DISTRIBUTION FOR SECNO= 22.20 CWSEL= 663.53

STA= 16. 272.

PER Q= 100.0

AREA= 1945.0

VEL= 2.7

\*SECNO 21.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELREA= 668.61 ELREA= 666.50

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2- 4-91 15:49:24

PAGE 70

SECNO	DEPTH	CWSEL	CRWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	KLOBL	KLCH	KLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

21.00	12.16	663.56	.00	.00	663.90	.34	.00	.00	668.61
5230.	0.	5230.	0.	0.	2019.	0.	54120.	9180.	666.50
2.57	.00	2.59	.00	.050	.028	.050	.000	651.40	16.05
.000325	1.	1.	1.	2	0	0	.00	246.30	262.35

0

0

FLOW DISTRIBUTION FOR SECNO= 21.00 CWSEL= 663.56

STA= 16. 272.

PER Q= 100.0

AREA= 2019.2

VEL= 2.6

1490 NH CARD USED

\*SECNO 20.000

20.00	11.65	663.55	.00	.00	663.96	.41	.02	.03	668.97
5230.	0.	5128.	102.	0.	1795.	152.	54259.	9198.	658.87
2.58	.00	2.86	.67	.050	.028	.063	.000	651.90	68.20
.000349	70.	70.	70.	2	0	0	.00	255.42	323.63

0

0

FLOW DISTRIBUTION FOR SECNO= 20.00 CWSEL= 663.55

STA= 68. 267. 280. 289. 291. 296. 298. 319. 321. 324.

PER Q= 98.0

AREA= 1795.5

VEL= 2.9

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2- 4-91 15:49:24

PAGE 71

SECNO	DEPTH	CWSEL	CRWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	KLOBL	KLCH	KLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CHV= .100 CEHV= .300

1490 NH CARD USED

\*SECNO 19.000

19.00	11.16	663.86	.00	.00	664.09	.23	.11	.02	659.00
5230.	65.	5165.	0.	126.	2396.	0.	55220.	9320.	665.90
2.64	.01	2.16	.00	.065	.028	.063	.000	652.70	117.27
.000207	455.	430.	405.	2	0	0	.00	315.64	432.91

0

0

FLOW DISTRIBUTION FOR SECNO= 19.00 CWSEL= 663.86

STA= 117. 157. 437.

PER Q= 1.2

AREA= 126.1

VEL= .5

1490 NH CARD USED

\*SECNO 18.000

3470 ENCROACHMENT STATIONS=	700.0	1017.4	TYPE=	1	TARGET=	-700.000
18.00	10.93	663.93	.00	.00	664.28	.35
5230.	204.	5026.	0.	273.	1888.	0.
2.70	.75	2.66	.00	.050	.028	.063
.000297	700.	630.	590.	2	0	0

0

0

FLOW DISTRIBUTION FOR SECNO= 18.00 CWSEL= 663.93

STA= 700. 776. 988.



PER Q= 3.9 96.1  
AREA= 272.8 1888.1  
VEL= .7 2.7

1 2- 4-91 15:49:24

PAGE 72

SECNO	DEPTH	CWSEL	CRIMS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	MTN	ELMIN	SSTA
SLOPE	KLOBL	KLCH	KLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED  
\*SECNO 17.000

3470	ENCROACHMENT STATIONS=	600.0	930.9	TYPE=	1	TARGET=	-600.000		
17.00	11.53	664.08	.00	.00	664.43	.35	.14	.00	658.94
5230.	200.	4981.	48.	321.	1869.	57.	57758.	9652.	659.54
2.76	.62	2.66	.85	.065	.028	.047	.000	652.55	600.00
.000299	415.	485.	520.	2	0	0	.00	317.65	917.65

0 FLOW DISTRIBUTION FOR SECNO= 17.00 CWSEL= 664.08

STA= 600. 693. 900. 918.

PER Q= 3.8 95.2  
AREA= 321.3 1869.3  
VEL= .6 2.7

1490 NH CARD USED  
\*SECNO 16.000

3470	ENCROACHMENT STATIONS=	858.0	1183.9	TYPE=	1	TARGET=	-858.000		
16.00	10.86	664.16	.00	.00	664.51	.35	.08	.00	658.50
5230.	254.	4898.	78.	341.	1826.	82.	58366.	9735.	659.20
2.79	.74	2.68	.95	.056	.028	.047	.000	653.30	858.00
.000291	210.	280.	305.	0	0	0	.00	317.39	1175.39

0 FLOW DISTRIBUTION FOR SECNO= 16.00 CWSEL= 664.16

1 2- 4-91 15:49:24

PAGE 73

SECNO	DEPTH	CWSEL	CRIMS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	MTN	ELMIN	SSTA
SLOPE	KLOBL	KLCH	KLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

0 FLOW DISTRIBUTION FOR SECNO= 16.00 CWSEL= 664.16

STA= 858. 947. 959. 1155. 1175.

PER Q= 3.7 94.7  
AREA= 271.9 69.1  
VEL= .7 .8

1490 NH CARD USED  
\*SECNO 15.000

3470	ENCROACHMENT STATIONS=	860.0	1351.8	TYPE=	1	TARGET=	-860.000		
15.00	9.80	664.35	.00	.00	664.62	.27	.10	.00	658.20
5230.	180.	5050.	0.	339.	2156.	0.	59291.	9858.	666.10
2.84	.53	2.34	.00	.078	.028	.047	.000	654.55	860.00
.000241	325.	400.	435.	2	0	0	.00	330.28	1190.28

0 FLOW DISTRIBUTION FOR SECNO= 15.00 CWSEL= 664.35

STA= 860. 946. 1193.

PER Q= 3.4 96.6  
AREA= 338.6 2155.7  
VEL= .5 2.3

1490 NH CARD USED  
\*SECNO 14.000

3470	ENCROACHMENT STATIONS=	14.00	9.23	664.48	.00	.00	664.75	.27	.13	.00	660.10
5230.	32.	5121.	77.	87.	2221.	85.	60576.	10027.	659.40		
2.90	.37	2.31	.90	.093	.028	.047	.000	655.25	617.34		
.000244	480.	530.	560.	0	0	0	.00	318.93	936.27		

0 FLOW DISTRIBUTION FOR SECNO= 14.00 CWSEL= 664.48

1 2- 4-91 15:49:24

PAGE 74

SECNO	DEPTH	CWSEL	CRIMS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	MTN	ELMIN	SSTA
SLOPE	KLOBL	KLCH	KLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

0 FLOW DISTRIBUTION FOR SECNO= 14.00 CWSEL= 664.48

STA= 617. 653. 916. 936.

PER Q= .6 97.9  
AREA= 86.5 2220.9  
VEL= .4 2.3

1490 NH CARD USED  
\*SECNO 13.000

3470	ENCROACHMENT STATIONS=	13.00	9.07	664.62	.00	.00	664.86	.24	.11	.00	664.20
5230.	9.	5226.	4.	0.	2419.	11.	61649.	10169.	662.50		
2.96	.14	2.16	.34	.037	.028	.047	.000	655.55	284.80		
.000235	435.	445.	450.	2	0	0	.00	319.49	604.29		

0 FLOW DISTRIBUTION FOR SECNO= 13.00 CWSEL= 664.62

STA= 285. 288. 594. 604.

PER Q= .0 99.9  
AREA= .7 2419.1  
VEL= .1 2.2

1490 NH CARD USED  
\*SECNO 12.000

3470	ENCROACHMENT STATIONS=	12.00	10.08	664.81	.00	.00	665.12	.31	.24	.02	662.78
5230.	0.	5169.	60.	2.	2083.	94.	63839.	10459.	660.80		
3.06	.29	2.48	.64	.047	.028	.047	.000	654.73	14.76		
.000277	945.	950.	950.	2	0	0	.00	290.43	305.19		





SECNO	DEPTH	CWSL	CRIMS	WSELK	EG	HV	HL	CLOSS	BANK	ELEV
Q	QLOB	QCH	QROB	ALCB	ACH	AROB	VOL	TWA	LEFT/RIGHT	
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA	
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST	

FLOW DISTRIBUTION FOR SECNO= 12.00 CWSL= 664.81

STA= 15. 17. 258. 305.  
 PER Q= .0 98.8 1.2  
 AREA= 2.1 2083.0 94.1  
 VEL= .3 2.5 .6

1490 NH CARD USED

*SECNO	11.000									
11.00	10.38	665.10	.00	.00	665.49	.39	.34	.02	663.72	
5230.	4.	5205.	22.	13.	1883.	40.	66159.	10763.	661.34	
3.18	.29	2.76	.54	.047	.028	.065	.000	654.72	16.57	
.000335	1190.	1130.	1050.	0	0	0	.00	252.04	268.61	

0 FLOW DISTRIBUTION FOR SECNO= 11.00 CWSL= 665.10

STA= 17. 37. 250. 269.  
 PER Q= .0 99.5 .4  
 AREA= 13.2 1883.0 39.7  
 VEL= .3 2.8 .3

1490 NH CARD USED

*SECNO	10.000									
10.00	9.48	665.43	.00	.00	665.77	.34	.28	.00	658.95	
5230.	172.	5058.	0.	304.	1923.	0.	67884.	10996.	665.94	
3.27	.57	2.63	.00	.093	.028	.065	.000	655.95	132.74	
.000342	880.	825.	780.	2	0	0	.00	306.46	439.20	

SECNO	DEPTH	CWSL	CRIMS	WSELK	EG	HV	HL	CLOSS	BANK	ELEV
Q	QLOB	QCH	QROB	ALCB	ACH	AROB	VOL	TWA	LEFT/RIGHT	
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA	
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST	

FLOW DISTRIBUTION FOR SECNO= 10.00 CWSL= 665.43

STA= 133. 198. 200. 440.  
 PER Q= 3.1 .2 96.7  
 AREA= 292.3 12.0 1923.5  
 VEL= .6 .7 2.6

1490 NH CARD USED

*SECNO	9.000									
9.00	11.19	665.57	.00	.00	666.06	.49	.24	.04	661.03	
5230.	100.	5119.	11.	124.	1635.	16.	69141.	11166.	660.85	
3.32	.81	3.13	.68	.055	.028	.047	.000	654.38	295.42	
.000422	610.	630.	635.	2	0	0	.00	238.74	534.16	

0 FLOW DISTRIBUTION FOR SECNO= 9.00 CWSL= 665.57

STA= 295. 343. 527. 534.  
 PER Q= 1.9 97.9 .2  
 AREA= 123.9 1635.0 15.9  
 VEL= .8 3.1 .7

1490 NH CARD USED

*SECNO	8.000									
3470 ENCROACHMENT STATIONS=			407.0	764.5	TYPE=	1	TARGET=	-407.000		
8.00	10.63	665.87	.00	.00	666.33	.47	.27	.00	661.09	
5230.	123.	5072.	35.	188.	1652.	38.	70319.	11324.	662.83	
3.39	.66	3.07	.91	.069	.028	.047	.000	655.24	407.00	
.000414	530.	655.	700.	2	0	0	.00	262.67	669.67	

SECNO	DEPTH	CWSL	CRIMS	WSELK	EG	HV	HL	CLOSS	BANK	ELEV
Q	QLOB	QCH	QROB	ALCB	ACH	AROB	VOL	TWA	LEFT/RIGHT	
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA	
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST	

FLOW DISTRIBUTION FOR SECNO= 8.00 CWSL= 665.87

STA= 407. 469. 657. 670.  
 PER Q= 2.4 97.0 .7  
 AREA= 187.6 1652.4 38.4  
 VEL= .7 3.1 .9

1490 NH CARD USED

\*SECNO 7.000

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS=										
7.00	9.74	666.32	.00	.00	666.68	.36	.34	.01	660.80	
5230.	49.	5029.	152.	78.	1844.	235.	72164.	11603.	660.90	
3.48	.64	2.73	.65	.064	.028	.065	.000	656.58	286.33	
.000339	805.	915.	1015.	2	0	0	.00	345.69	700.00	

0 FLOW DISTRIBUTION FOR SECNO= 7.00 CWSL= 666.32

STA= 286. 313. 531. 700.  
 PER Q= .9 96.2 2.9  
 AREA= 77.6 1844.2 234.8  
 VEL= .6 2.7 .6



SECNO	DEPTH	CWSEL	CRIMS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XLN	XLNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED  
\*SECNO 6.000

3470	ENCROACHMENT STATIONS=	.0	300.0	TYPE=	1	TARGET=	299.999		
6.00	10.28	666.38	.00	.00	666.81	.43	.10	.02	663.81
5230.	7.	5104.	118.	16.	1735.	169.	72750.	11693.	661.61
3.51	.46	2.94	.70	.047	.028	.065	.000	656.10	21.75
.000384	265.	285.	315.	2	0	0	.00	273.62	295.37

0 FLOW DISTRIBUTION FOR SECNO= 6.00 CWSL= 666.38

STA=	22.	36.	236.	295.
PER Q=	.1	97.6	2.3	
AREA=	15.8	1734.9	169.5	
VEL=	.5	2.9	.7	

1490 NH CARD USED  
\*SECNO 5.000

5.00	9.90	666.69	.00	.00	667.00	.32	.19	.01	663.29
5230.	3.	5181.	46.	7.	2062.	75.	73859.	11845.	662.14
3.57	.49	2.51	.61	.047	.028	.061	.000	656.79	33.80
.000306	590.	550.	475.	2	0	0	.00	289.28	323.08

0 FLOW DISTRIBUTION FOR SECNO= 5.00 CWSL= 666.69

STA=	34.	38.	292.	323.
PER Q=	.0	99.1	.9	
AREA=	6.9	2061.7	75.2	
VEL=	.5	2.5	.6	

1 2- 4-91 15:49:24

PAGE 79

SECNO	DEPTH	CWSEL	CRIMS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XLN	XLNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED  
\*SECNO 4.000

3265 DIVIDED FLOW

4.00	10.01	667.01	.00	.00	667.22	.20	.20	.01	667.01
5230.	0.	2997.	2233.	0.	1289.	1523.	75593.	12110.	662.88
3.67	.00	2.33	1.47	.047	.028	.036	.000	657.00	3.70
.000269	715.	700.	700.	2	0	0	.00	466.27	776.44

0 FLOW DISTRIBUTION FOR SECNO= 4.00 CWSL= 667.01

STA=	4.	158.	561.	650.	679.	696.	705.	714.	722.	731.	740.	748.	760.
PER Q=	57.3	3.5	4.3	3.9	6.0	3.1	3.1	3.1	3.3	3.4	3.2	3.6	
AREA=	1288.7	288.8	355.3	161.6	135.8	69.7	69.4	69.4	71.6	73.1	70.8	85.3	
VEL=	2.3	.6	.6	1.3	2.3	2.3	2.3	2.3	2.4	2.4	2.4	2.2	
STA=	760.	776.											
PER Q=	2.2												
AREA=	71.9												
VEL=	1.6												

1490 NH CARD USED  
\*SECNO 3.000

3265 DIVIDED FLOW

1 2- 4-91 15:49:24

PAGE 80

SECNO	DEPTH	CWSEL	CRIMS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XLN	XLNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470	ENCROACHMENT STATIONS=	.0	490.0	TYPE=	1	TARGET=	499.999		
3.00	8.12	667.22	.00	.00	667.53	.30	.28	.03	665.40
5230.	30.	4800.	400.	55.	1899.	367.	77935.	12510.	662.10
3.77	.54	2.53	1.09	.047	.028	.040	.000	659.10	62.52
.000355	700.	900.	940.	2	0	0	.00	412.33	490.00

0 FLOW DISTRIBUTION FOR SECNO= 3.00 CWSL= 667.22

STA=	63.	117.	377.	440.	490.
PER Q=	.6	91.8	6.1	1.5	
AREA=	55.2	1898.5	266.9	99.8	
VEL=	.5	2.5	1.2	.8	

1490 NH CARD USED  
\*SECNO 2.000

2.00	9.61	667.40	.00	.00	667.84	.44	.28	.04	663.59
5230.	6.	5178.	46.	10.	1754.	71.	79424.	12747.	662.85
3.84	.59	2.95	.65	.047	.028	.065	.000	657.79	19.74
.000415	800.	725.	635.	2	0	0	.00	256.17	275.91

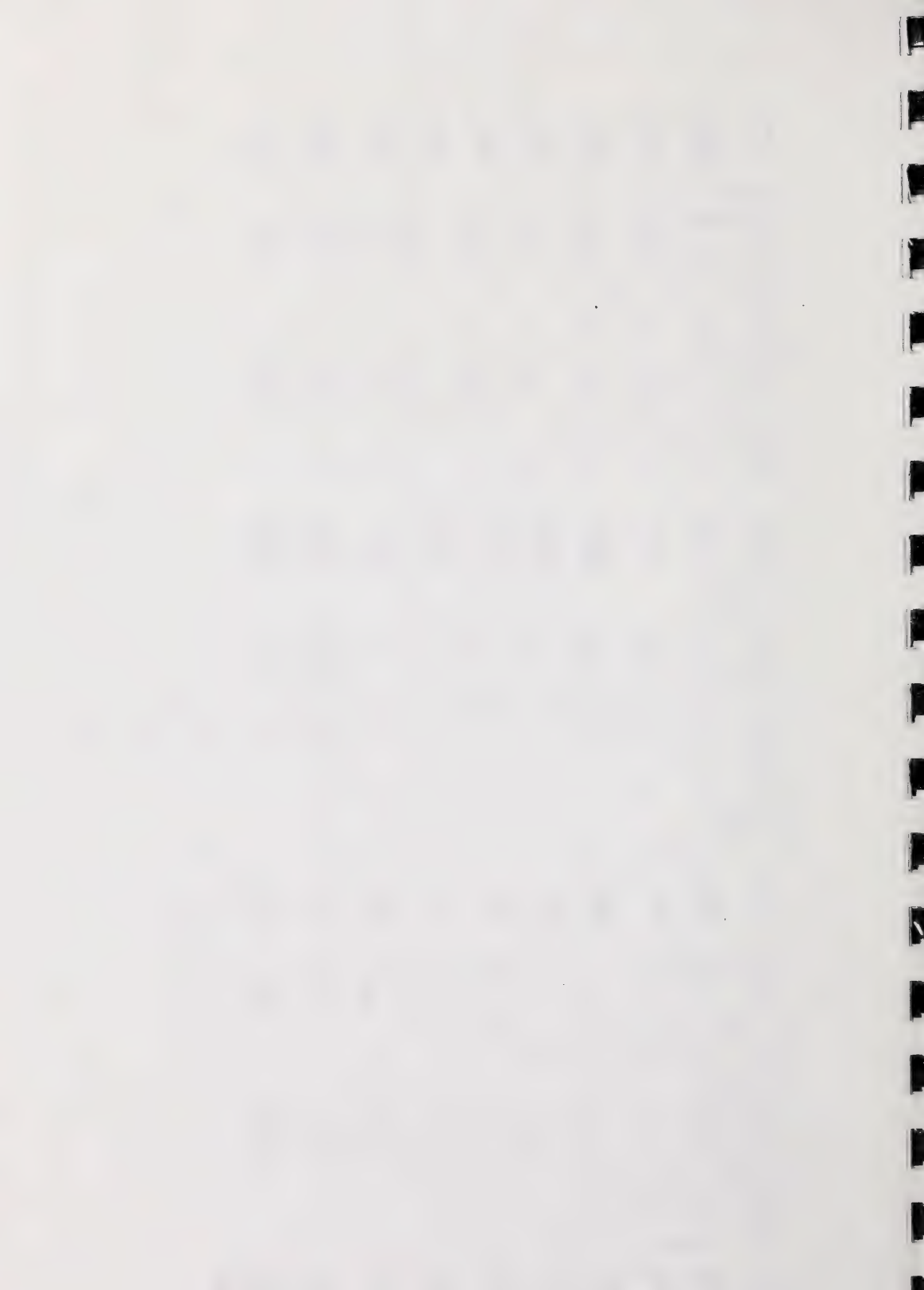
0 FLOW DISTRIBUTION FOR SECNO= 2.00 CWSL= 667.40

STA=	20.	25.	239.	276.
PER Q=	.1	99.0	.9	
AREA=	10.2	1753.8	71.1	
VEL=	.6	3.0	.6	

1 2- 4-91 15:49:24

PAGE 81

SECNO	DEPTH	CWSEL	CRIMS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XLN	XLNCH	XNR	WTN	ELMIN	SSTA



SLOPE	KLOBL	KLCH	KLOBA	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
1490 NH CARD USED									
*SECHO 1.000									
1.00	8.44	667.63	.00	.00	668.14	.52	.28	.02	662.97
5230.	86.	5114.	31.	76.	1591.	45.	80463.	12899.	663.54
3.89	1.12	3.21	.68	.047	.028	.063	.000	659.19	90.55
.000545	535.	585.	640.	0	0	0	.00	261.09	351.44
FLOW DISTRIBUTION FOR SECHO= 1.00 CWSL= 667.63									
STA=	91.	120.	329.	352.					
PER Q=	1.6	97.8	.6						
AREA=	76.3	1591.0	44.9						
VEL=	1.1	3.2	.7						

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2- 4-91 15:49:24

PAGE 82

THIS RUN EXECUTED 2- 4-91

\*\*\*\*\*  
REC2 RELEASE DATED NOV 76 UPDATED MAY 1984  
ERROR CORA - 01.02.03.04.05.06  
MODIFICATION 50.51.52.53.54.55.56  
IBM-PC-AT VERSION AUGUST 1985  
\*\*\*\*\*

NOTE- ASTERISK (\*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

SOUTH SASKATCHEWAN RIV  
SUMMARY PRINTOUT TABLE 150

SECHO	KLCH	ELTRO	ELLC	RLMIN	Q	CWSL	CRWS	EG	10K'S	VCH	AREA	.01K
77.000	.00	.00	.00	639.40	5230.00	647.89	.00	648.29	5.03	3.06	2498.39	2332.10
76.000	600.00	.00	.00	637.00	5230.00	648.04	.00	648.74	7.04	3.78	1604.81	1970.49
75.000	635.00	.00	.00	636.40	5230.00	648.46	.00	649.19	6.99	3.88	1556.08	1978.60
74.000	870.00	.00	.00	641.50	5230.00	649.35	.00	649.67	3.86	2.66	2323.06	2662.38
73.000	640.00	.00	.00	641.00	5230.00	649.51	.00	650.02	5.75	3.28	1837.93	2180.16
72.000	605.00	.00	.00	639.70	5230.00	649.77	.00	650.48	7.81	3.82	1530.34	1871.79
71.000	640.00	.00	.00	641.90	5230.00	650.52	.00	650.86	3.79	2.61	2152.59	2681.94
70.000	570.00	.00	.00	640.30	5230.00	650.58	.00	651.24	6.88	3.64	1561.60	1993.90
69.000	845.00	.00	.00	642.40	5230.00	651.27	.00	651.81	6.26	3.26	1685.04	2091.12
68.000	470.00	.00	.00	642.60	5230.00	651.53	.00	652.14	7.00	3.49	1593.78	1976.42
67.000	810.00	.00	.00	641.80	5230.00	652.17	.00	652.64	5.25	3.07	1743.78	2281.89
66.000	665.00	.00	.00	643.32	5230.00	652.56	.00	656.96	4.44	2.91	2119.65	2480.83
65.000	325.00	.00	.00	643.88	5230.00	652.67	.00	653.14	5.26	3.22	2057.31	2279.72
64.000	940.00	.00	.00	642.15	5230.00	653.10	.00	653.73	6.23	3.58	1667.21	2095.62
63.000	705.00	.00	.00	642.97	5230.00	653.58	.00	654.16	5.98	3.54	1806.29	2139.21
62.000	730.00	.00	.00	645.50	5230.00	655.64	.00	656.07	4.57	3.01	1939.46	2145.87
61.000	505.00	.00	.00	646.66	5230.00	654.43	.00	654.81	4.42	2.81	2119.71	2488.87
60.000	570.00	.00	.00	646.34	5230.00	654.69	.00	655.07	4.69	2.80	2039.64	2415.28
59.000	470.00	.00	.00	644.57	5230.00	654.81	.00	655.37	5.88	3.44	1773.14	2156.71
58.000	950.00	.00	.00	645.03	5230.00	655.35	.00	655.91	5.55	3.43	1766.44	2219.71
57.000	310.00	.00	.00	646.59	5230.00	655.64	.00	656.19	4.57	3.01	1649.69	2084.84
56.000	960.00	.00	.00	647.10	5230.00	656.08	.00	656.53	4.92	3.00	1871.88	2357.02
55.000	885.00	.00	.00	647.22	5230.00	656.69	.00	656.84	2.24	1.76	3177.85	3498.04
54.000	835.00	.00	.00	643.85	5230.00	656.59	.00	657.29	6.07	3.81	1631.82	2122.15
53.000	685.00	.00	.00	648.66	5230.00	657.25	.00	657.68	4.97	3.14	2140.19	2346.97
52.000	600.00	.00	.00	649.19	5230.00	657.68	.00	658.00	4.30	2.52	2243.34	2521.74
51.000	915.00	.00	.00	649.40	5230.00	657.99	.00	658.53	5.95	3.32	2058.80	2144.60
50.000	155.00	.00	.00	649.00	5230.00	658.08	.00	658.62	5.98	3.31	2083.41	2139.36
49.000	610.00	.00	.00	648.90	5230.00	658.38	.00	659.01	6.11	3.58	1857.32	2115.69
48.000	965.00	.00	.00	651.60	5230.00	659.17	.00	659.52	4.09	2.68	2670.97	2586.96
47.000	650.00	.00	.00	651.40	5230.00	659.44	.00	659.80	4.46	2.82	1861.13	2146.81
46.000	445.00	.00	.00	645.30	5230.00	659.41	.00	660.13	6.41	4.07	2503.50	2086.39
45.000	305.00	.00	.00	651.80	5230.00	660.07	.00	660.30	2.87	2.23	3583.52	3086.93
44.000	695.00	.00	.00	649.60	5230.00	660.07	.00	660.68	5.67	3.64	2492.93	2197.01
43.000	410.00	.00	.00	653.20	5230.00	660.42	.00	660.95	6.76	3.28	2115.34	2011.69
42.000	620.00	.00	.00	651.10	5230.00	661.87	.00	661.20	6.42	3.61	1650.69	2046.82
41.000	520.00	.00	.00	650.60	5230.00	661.06	.00	661.71	5.93	3.59	1528.00	2147.56
40.000	510.00	.00	.00	652.90	5230.00	661.64	.00	661.97	3.41	2.53	2124.23	2833.21
39.000	170.00	.00	.00	652.70	5230.00	661.67	.00	662.08	4.38	2.84	1839.29	2497.67
38.200	1.00	665.00	666.14	652.70	5230.00	661.65	.00	662.09	5.54	2.94	1780.99	2222.36
38.100	220.00	665.00	665.77	653.80	5230.00	661.65	.00	662.12	3.31	3.06	1708.88	2032.35
37.000	1.00	.00	.00	652.80	5230.00	661.69	.00	662.13	5.00	2.95	1772.29	2339.09
36.000	95.00	.00	.00	652.30	5230.00	661.79	.00	662.19	3.81	2.83	2085.85	2679.80
35.000	95.00	.00	.00	651.60	5230.00	661.89	.00	662.24	4.39	2.62	1997.55	2496.89
34.200	1.00	665.70	664.50	651.60	5230.00	661.86	.00	662.28	6.37	2.85	1831.88	2072.45
34.100	110.00	665.50	664.40	651.45	5230.00	661.87	.00	662.52	7.53	2.81	1651.85	1860.55
33.000	1.00	.00	.00	651.50	5230.00	661.97	.00	662.31	4.22	2.61	2005.92	2545.55
32.000	100.00	.00	.00	651.80	5230.00	661.95	.00	662.42	4.36	3.10	1960.27	2505.27
31.000	85.00	.00	.00	651.50	5230.00	662.07	.00	662.48	5.19	2.84	1840.69	2295.61
30.200	1.00	666.20	666.35	651.50	5230.00	662.05	.00	662.50	6.55	2.97	1760.79	2042.96
30.100	11.00	666.20	666.20	651.45	5230.00	662.03	.00	662.54	7.90	2.61	1651.85	1860.55
29.000	1.00	.00	.00	651.45	5230.00	662.10	.00	662.56	5.98	2.99	1748.06	2138.37
28.000	155.00	.00	.00	651.30	5230.00	662.15	.00	662.68	4.47	3.23	1749.88	2475.09
27.000	485.00	.00	.00	653.00	5230.00	662.50	.00	662.88	3.45	2.75	2101.02	2817.17
26.000	340.00	.00	.00	653.50	5230.00	662.71	.00	662.99	2.59	2.33	2368.59	3248.71
25.000	890.00	.00	.00	653.40	5230.00	662.82	.00	663.27	3.26	2.82	2184.97	2895.62
24.000	515.00	.00	.00	652.10	5230.00	663.06	.00	663.46	3.46	2.82	2125.77	2812.59
23.000	500.00	.00	.00	649.50	5230.00	663.10	.00	663.73	4.80	3.67	1761.26	2386.24
22.000	120.00	.00	.00	650.90	5230.00	663.53	.00	663.87	3.19	2.58	2026.51	2928.77
22.100	630.00	.00	.00	650.90	5230.00	663.52	.00	663.88	4.52	2.67	1957.08	2440.32
22.200	33.00	.00	.00	651.40	5230.00	663.53	.00	663.90	4.60	2.68	1944.97	2438.73
21.000	1.00	.00	.00	651.40	5230.00	663.56	.00	663.90	3.25	2.59	2019.20	2900.22
20.000	70.00	.00	.00	651.90	5230.00	663.55	.00	663.96	3.49	2.86	1947.25	2800.50
19.000	430.00	.00	.00	652.70	5230.00	663.86	.00	664.29	2.07	2.16	2522.43	3632.07
18.000	630.00	.00	.00	653.00	5230.00	663.93	.00	664.22	2.97	2.66	2160.89	3035.95
17.000	485.00	.00	.00	652.55	5230.00	664.08	.00	664.43	2.99	2.66	2247.45	3032.33
16.000	280.00	.00	.00	653.30	5230.00	664.16	.00	664.51	2.91	2.68	2249.38	3067.57
15.000	400.00	.00	.00	654.55	5230.00	664.35	.00	664.62	2.41	2.34	2494.25	3365.92
14.000	530.00	.00	.00	655.25	5230.00	664.48	.00	664.75	2.44	2.31	2392.64	3348.43
13.000	460.00	.00	.00	655.55	5230.00	664.62	.00	664.80	2.35	2.16	2430.37	3415.23
12.000	950.00	.00	.00	654.73	5230.00	664.81	.00	665.12	2.77	2.48	2179.22	3140.68
11.000	1130.00	.00	.00	654.72	5230.00	665.10	.00	665.49	3.35	2.76	1935.89	2857.70
10.000	825.00	.00	.00	655.95	5230.00	665.43	.00	665.77	3.42	2.63	2227.70	2827.31
9.000	630.00	.00	.00	654.38	5230.00	665.87	.00	666.06	4.22	3.13	1774.80	2544.76
8.000	655.00	.00	.00	655.24	5230.00	665.87	.00	666.33	4.14	3.07	1878.35	2571.52





7.000	915.00	.00	.00	656.58	5230.00	666.32	.00	666.68	3.39	2.73	2156.56	2840.14
6.000	285.00	.00	.00	656.10	5230.00	666.38	.00	666.81	3.84	2.94	1920.17	2669.06
5.000	550.00	.00	.00	656.79	5230.00	666.69	.00	667.00	3.06	2.51	2143.85	2990.12
4.000	700.00	.00	.00	657.00	5230.00	667.01	.00	667.22	2.69	2.33	2811.29	3184.15
3.000	900.00	.00	.00	659.19	5230.00	667.22	.00	667.93	3.55	2.53	2320.35	2774.41
2.000	725.00	.00	.00	657.79	5230.00	667.40	.00	667.84	4.15	2.95	1835.12	2566.25
1.000	585.00	.00	.00	659.19	5230.00	667.63	.00	668.14	5.45	3.21	1712.16	2241.01

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2- 4-91 15:49:24

PAGE 86

## SOUTH SASKATCHEWAN RIV

## SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSKL	DIFWSP	DIFWSK	DIFWMS	TOPWID	XLCH
77.000	5230.00	647.89	.00	.00	-11	458.27	.00
76.000	5230.00	648.04	.00	.14	.00	311.20	600.00
75.000	5230.00	648.46	.00	.43	.00	235.31	635.00
74.000	5230.00	649.35	.00	.89	.00	417.06	870.00
73.000	5230.00	649.51	.00	.16	.00	328.44	640.00
72.000	5230.00	649.77	.00	.26	.00	240.17	605.00
71.000	5230.00	650.52	.00	.75	.00	358.00	645.00
70.000	5230.00	650.58	.00	.06	.00	250.91	570.00
69.000	5230.00	651.27	.00	.69	.00	293.91	845.00
68.000	5230.00	651.53	.00	.26	.00	259.75	470.00
67.000	5230.00	652.17	.00	.63	.00	256.85	810.00
66.000	5230.00	652.56	.00	.40	.00	340.24	665.00
65.000	5230.00	652.67	.00	.11	.00	393.90	325.00
64.000	5230.00	653.10	.00	.43	.00	266.88	940.00
63.000	5230.00	653.58	.00	.47	.00	293.89	705.00
62.000	5230.00	654.05	.00	.47	.00	287.32	730.00
61.000	5230.00	654.43	.00	.38	.00	354.00	505.00
60.000	5230.00	654.69	.00	.26	.00	319.45	570.00
59.000	5230.00	654.81	.00	.12	.00	307.25	470.00
58.000	5230.00	655.35	.00	.54	.00	295.63	950.00
57.000	5230.00	655.64	.00	.29	.00	311.32	310.00
56.000	5230.00	656.08	.00	.45	.00	286.40	960.00
55.000	5230.00	656.69	.00	.60	.00	538.39	885.00
54.000	5230.00	656.59	.00	-1.0	.00	235.64	835.00
53.000	5230.00	657.25	.00	.66	.00	500.32	845.00
52.000	5230.00	657.68	.00	.43	.00	418.92	665.00
51.000	5230.00	657.99	.00	.31	.00	381.23	915.00
50.000	5230.00	658.08	.00	.09	.00	386.85	155.00
49.000	5230.00	658.38	.00	.30	.00	353.52	610.00
48.000	5230.00	658.17	.00	.79	.00	548.68	965.00
47.000	5230.00	659.44	.00	.27	.00	718.54	650.00
46.000	5230.00	659.41	.00	-0.3	.00	626.48	445.00
45.000	5230.00	660.07	.00	.66	.00	751.14	305.00
44.000	5230.00	660.77	.00	.00	.00	627.15	695.00
43.000	5230.00	660.42	.00	.34	.00	480.00	410.00
42.000	5230.00	660.74	.00	.32	.00	280.23	620.00
41.000	5230.00	661.06	.00	.32	.00	208.87	520.00
40.000	5230.00	661.64	.00	.58	.00	301.62	510.00
39.000	5230.00	661.67	.00	.02	.00	244.69	170.00
38.200	5230.00	661.65	.00	-0.1	.00	237.32	1.00
38.100	5230.00	661.65	.00	-0.0	.00	238.02	22.00
37.000	5230.00	661.69	.00	.04	.00	245.35	1.00
36.000	5230.00	661.79	.00	.10	.00	230.69	95.00
35.000	5230.00	661.89	.00	.10	.00	301.13	95.00
34.200	5230.00	661.86	.00	-0.3	.00	272.72	1.00
34.100	5230.00	661.87	.00	.00	.00	267.89	15.00
33.000	5230.00	661.97	.00	.10	.00	296.01	1.00
32.000	5230.00	661.95	.00	-0.2	.00	292.39	100.00
31.000	5230.00	662.07	.00	.13	.00	277.58	85.00
30.200	5230.00	662.05	.00	-0.2	.00	267.55	1.00
30.100	5230.00	662.03	.00	-0.2	.00	261.52	11.00
29.000	5230.00	662.10	.00	.07	.00	271.72	1.00
28.000	5230.00	662.15	.00	.04	.00	241.00	155.00
27.000	5230.00	662.50	.00	.36	.00	277.72	485.00
26.000	5230.00	662.71	.00	.21	.00	323.46	340.00
25.000	5230.00	662.92	.00	.21	.00	354.04	890.00
24.000	5230.00	663.06	.00	.14	.00	296.94	515.00
23.000	5230.00	663.10	.00	.03	.00	231.21	500.00
22.000	5230.00	663.53	.00	.43	.00	244.26	120.00
22.100	5230.00	663.52	.00	-0.1	.00	236.49	1.00
22.200	5230.00	663.53	.00	.01	.00	238.38	33.00
21.000	5230.00	663.56	.00	.03	.00	246.30	1.00
20.000	5230.00	663.55	.00	-0.0	.00	255.42	70.00
19.000	5230.00	663.86	.00	.30	.00	315.64	430.00
18.000	5230.00	663.93	.00	.08	.00	281.70	630.00
17.000	5230.00	664.08	.00	.15	.00	317.65	485.00
16.000	5230.00	664.16	.00	.08	.00	317.39	280.00
15.000	5230.00	664.35	.00	.19	.00	330.28	400.00
14.000	5230.00	664.48	.00	.13	.00	318.93	530.00
13.000	5230.00	664.62	.00	.14	.00	319.49	445.00
12.000	5230.00	664.81	.00	.19	.00	290.43	950.00
11.000	5230.00	665.10	.00	.29	.00	252.04	1130.00
10.000	5230.00	665.43	.00	.33	.00	306.44	825.00
9.000	5230.00	665.57	.00	.13	.00	238.74	630.00
8.000	5230.00	665.87	.00	.30	.00	262.67	655.00
7.000	5230.00	666.32	.00	.45	.00	345.69	915.00
6.000	5230.00	666.38	.00	.06	.00	273.62	285.00
5.000	5230.00	666.69	.00	.31	.00	289.28	550.00
4.000	5230.00	667.01	.00	.33	.00	466.27	700.00
3.000	5230.00	667.22	.00	.21	.00	412.33	900.00
2.000	5230.00	667.40	.00	.18	.00	256.17	725.00
1.000	5230.00	667.63	.00	.22	.00	261.09	585.00

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2- 4-91 15:49:24

PAGE 90

## SUMMARY OF ERRORS AND SPECIAL NOTES

1

2- 4-91 15:52: 5

PAGE 1



THIS RUN EXECUTED 2- 4-91

\*\*\*\*\*  
HEC2 RELEASE DATED NOV 76 UPDATED MAY 1984  
ERROR CORR - 01,02,03,04,05,06  
MODIFICATION - 50,51,52,53,54,55,56  
IBM-PC-XT VERSION AUGUST 1985  
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*****
* WATER SURFACE PROFILES
* VERSION OF NOVEMBER 1976
* UPDATED MAY 1984
* IBM-PC-XT VERSION AUGUST 1985
* RUN DATE 02-20-91 TIME 09:46:56
*****

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*****
* U.S. ARMY CORPS OF ENGINEERS
* THE HYDROLOGIC ENGINEERING CENTER
* 609 SECOND STREET, SUITE D
* DAVIS, CALIFORNIA 95616
* (916) 440-2105 (FTS) 448-2105
*****

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      X   X   XXXXXX   XXXXX   XXXXX
      X   X   X       X   X       X   X
      X   X   X       X   X       X   X
      XXXXXX   XXXX   X   XXXXX   XXXXX
      X   X   X       X   X       X   X
      X   X   XXXXXX   XXXXX   XXXXX

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1 02-20-91 09:46:57

PAGE 1

THIS RUN EXECUTED 02-20-91

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HEC2 RELEASE DATED NOV 76 UPDATED MAY 1984
ERROR CORA - 01,02,03,04,05,06
MODIFICATION - 50,51,52,53,54,55,56
IBM-PC-XT VERSION AUGUST 1985
*****

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T1 Medicine Hat FOR 21 Nov 89 FINAL RUN 1/100 year 273 m3/s & 152 m3/s
T2 seg 1-4.5 Ross/7 Persons combined flow *** encroached to floodway ***
T3 Ross Creek at Medicine Hat B Yaremko ***** as defined on plan *****

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J1	ICHECK	INQ	NINW	IDIR	STAT	METRIC	HVINS	Q	WSEL	FQ
0.	0.	0.	0.	0.	-1.000000	1.00	.0	273.	653.500	.000
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIN	ITRACE
	-1.000	.000	-1.000	.000	.000	.000	.000	.000	.000	15.000
J3	VARIABLE CODES FOR SUMMARY PRINTOUT									
	150.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
J6	IHEQ	ICOPY								
	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

NC	.150	.150	.055	.100	.300	.000	.000	.000	.000	.000
X1	1.000	15.000	80.000	140.000	.000	.000	.000	.000	.000	.000
GR	659.000	.000	658.000	12.000	657.000	30.000	656.000	50.000	655.000	80.000
GR	654.000	85.000	652.750	90.000	652.750	105.000	654.000	110.000	655.000	120.000
GR	656.000	125.000	657.000	130.000	658.000	135.000	659.000	140.000	660.000	175.000
X1	1.100	.000	.000	.000	10.000	10.000	10.000	.000	.000	.000
X1	1.200	.000	.000	.000	20.000	20.000	20.000	.000	.000	.000
X1	1.300	.000	.000	.000	20.000	20.000	20.000	.000	.000	.000
X1	2.000	17.000	65.000	110.000	60.000	60.000	60.000	.000	.000	.000
GR	659.000	.000	658.000	70.500	657.000	15.000	656.000	25.000	655.000	45.000
GR	654.000	65.000	659.610	70.000	653.330	70.650	652.920	72.850	653.290	75.160
GR	653.260	79.890	653.100	84.910	653.270	85.890	653.890	87.050	654.000	90.000
GR	659.000	110.000	660.000	130.000	.000	.000	.000	.000	.000	.000
X1	3.100	12.000	70.000	125.000	225.000	200.000	265.000	.000	.000	.000
X3	.000	.000	.000	.000	.000	125.000	.000	.000	.000	.000
GR	659.000	.000	658.000	20.000	657.000	35.000	656.000	55.000	655.000	70.000
GR	654.000	80.000	653.000	80.000	653.000	95.000	654.000	95.000	655.000	100.000
GR	658.000	125.000	658.000	145.000	.000	.000	.000	.000	.000	.000

1 02-20-91 09:46:57

PAGE 2

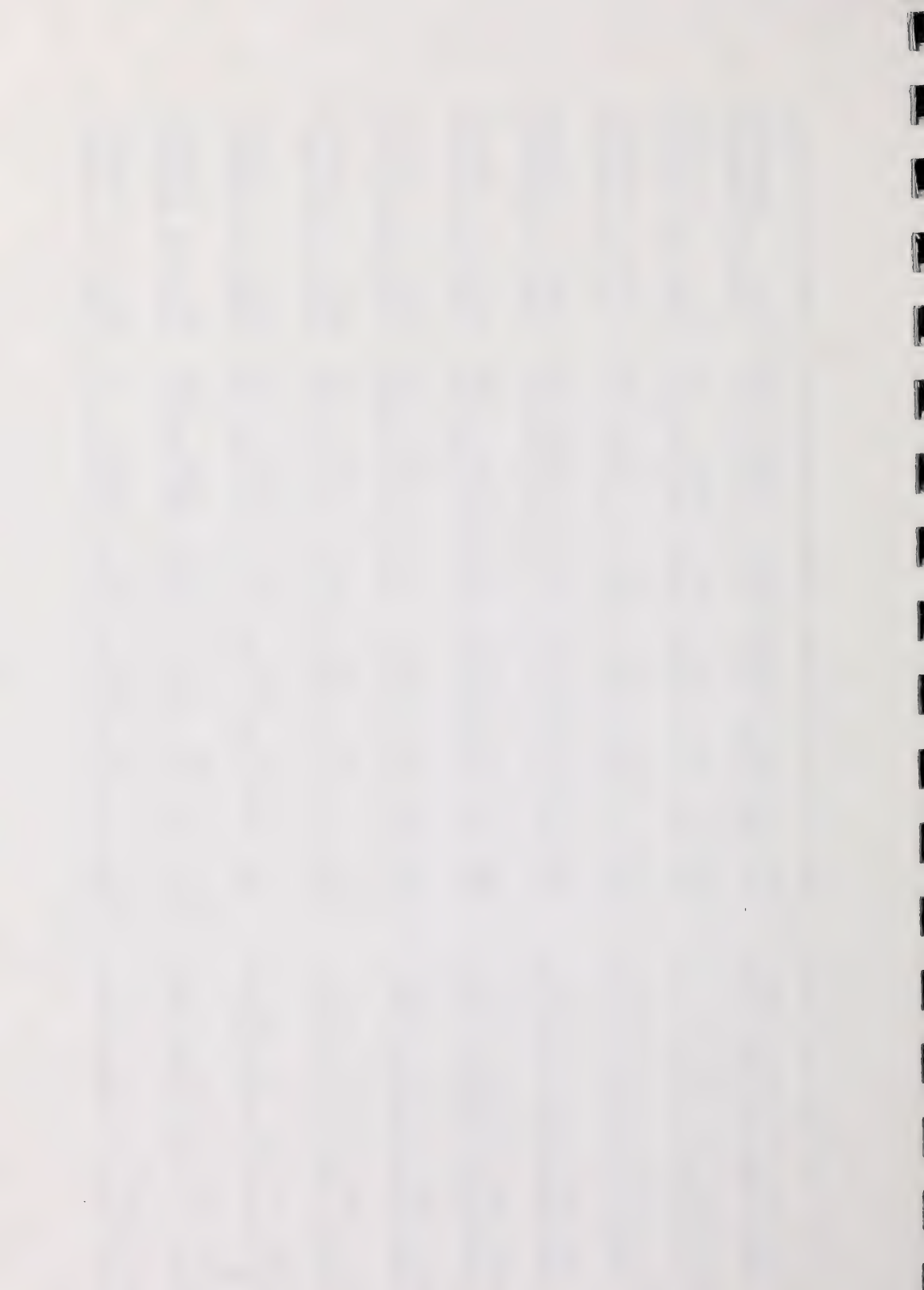
X1	3.200	11.000	65.000	105.000	375.000	100.000	290.000	.000	.000	.000
X3	.000	.000	.000	.000	.000	200.000	.000	.000	.000	.000
GR	660.000	.000	660.000	55.000	659.000	65.000	655.000	80.000	653.500	87.500
GR	655.000	95.000	657.000	100.000	658.000	105.000	658.000	200.000	659.000	250.000
GR	660.000	400.000	.000	.000	.000	.000	.000	.000	.000	.000
NH	5.000	.040	60.000	.055	90.000	.150	210.000	.055	250.000	.150
NH	350.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
X1	3.300	15.000	210.000	250.000	230.000	200.000	230.000	.000	.000	.000
GR	660.000	.000	659.000	60.000	658.000	65.000	655.000	70.000	654.000	75.000
GR	655.000	80.000	657.000	90.000	657.000	95.000	657.000	205.000	657.000	210.000
GR	655.000	220.000	654.000	230.000	655.000	235.000	659.000	250.000	660.000	350.000
NC	.000	.000	.000	.300	.500	.000	.000	.000	.000	.000
NH	4.000	.150	200.000	.055	223.000	.150	370.000	.055	450.000	.000
X1	4.100	28.000	370.000	413.000	130.000	150.000	160.000	.000	.000	.000
X3	.000	.000	.000	150.000	.000	450.000	.000	.000	.000	.000
GR	658.000	.000	658.000	200.000	657.900	200.000	656.400	201.000	655.700	204.000
GR	654.600	205.000	654.000	207.000	654.400	212.000	654.400	216.000	654.600	218.000
GR	655.900	220.000	657.000	222.000	657.500	223.000	658.000	223.000	658.000	370.000
GR	657.900	370.000	657.710	370.000	655.840	374.000	654.670	384.500	654.620	388.000
GR	654.390	393.000	654.630	399.000	654.670	403.500	655.900	407.500	656.690	413.000
GR	657.950	413.000	658.410	417.000	658.700	450.000	.000	.000	.000	.000
NH	4.000	.150	200.000	.055	223.000	.150	370.000	.055	450.000	.000
X1	4.200	72.000	370.000	411.000	5.000	5.000	5.000	.000	.000	.000
X3	.000	.000	.000	150.000	.000	450.000	.000	.000	.000	.000
GR	658.700	.000	658.700	200.000	657.900	200.000	656.400	201.000	655.700	204.000
GR	657.900	204.000	657.900	204.300	655.700	204.300	654.600	205.000	654.000	207.000
GR	654.200	209.000	657.900	209.000	657.900	209.300	654.200	209.300	654.400	212.000
GR	654.400	214.000	657.900	214.000	657.900	214.300	654.400	214.300	654.400	216.000
GR	654.600	218.000	654.700	218.700	657.900	218.700	657.900	219.000	654.700	219.000



GR	655.900	220.000	657.000	222.000	657.500	223.000	657.900	223.000	658.700	223.000
GR	658.700	370.000	657.900	370.000	655.750	374.500	657.900	374.500	657.800	374.800
GR	655.650	374.800	655.450	379.200	657.900	379.200	657.900	379.500	655.350	379.500
GR	655.200	383.900	657.900	383.900	657.900	384.200	655.200	384.200	658.600	388.600
GR	657.900	388.600	657.900	388.600	654.300	388.300	654.840	389.100	654.280	392.400
GR	654.290	393.300	657.900	393.300	657.900	393.600	654.290	393.600	654.250	397.300
GR	654.300	398.000	657.900	398.000	657.900	398.300	654.300	398.300	655.840	399.600
GR	655.800	402.700	657.900	402.700	657.900	403.000	655.800	403.000	655.390	407.500
GR	657.900	407.500	657.900	407.800	655.650	407.800	656.590	411.000	657.900	411.000
GR	658.700	411.000	658.700	450.000	.000	.000	.000	.000	.000	.000
NH	4.000	.150	200.000	.055	223.000	.150	370.000	.055	450.000	.000
X1	4.300	.000	.000	.000	6.000	6.000	6.000	.000	.000	.000
X3	.000	.000	.000	150.000	.000	450.000	.000	.000	.000	.000
NH	4.000	.150	200.000	.055	223.000	.150	370.000	.055	450.000	.000
X1	4.400	28.000	370.000	411.000	5.000	5.000	5.000	.000	.000	.000
X3	.000	.000	.000	150.000	.000	450.000	.000	.000	.000	.000
GR	658.000	.000	658.000	200.000	657.900	200.000	656.400	201.000	655.700	204.000
GR	654.600	205.000	654.000	207.000	654.400	212.000	654.400	216.000	654.600	218.000
GR	655.900	220.000	657.000	222.000	657.500	223.000	658.000	223.000	658.000	370.000

GR	657.900	370.000	655.660	374.800	654.840	389.100	654.290	392.600	654.250	397.300
GR	655.840	399.600	655.590	407.500	656.700	411.000	657.900	411.000	658.470	411.000
GR	658.570	413.700	658.590	427.100	.000	.000	.000	.000	.000	.000
NH	5.000	.150	200.000	.055	240.000	.150	390.000	.055	430.000	.200
NH	550.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
X1	4.500	26.000	390.000	430.000	100.000	50.000	120.000	.000	.000	.000
X2	152.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
X3	.000	.000	.000	390.000	.000	480.000	.000	.000	.000	.000
GR	659.500	.000	659.000	40.000	658.000	50.000	657.000	70.000	657.000	80.000
GR	658.000	170.000	658.000	200.000	655.000	210.000	654.000	215.000	655.000	220.000
GR	657.000	225.000	658.000	240.000	658.000	310.000	657.000	320.000	660.000	325.000
GR	660.000	390.000	658.000	395.000	658.000	400.000	657.000	405.000	655.000	410.000
GR	654.500	412.000	655.000	415.000	659.960	430.000	660.000	480.000	659.000	505.000
GR	659.000	550.000	.000	.000	.000	.000	.000	.000	.000	.000
NC	.150	.200	.000	.100	.300	.000	.000	.000	.000	.000
X1	17.000	26.000	187.060	219.400	250.000	60.000	130.000	.000	.000	.000
X3	.000	.000	.000	180.000	.000	340.000	.000	.000	.000	.000
GR	661.040	.000	658.060	11.400	657.970	21.500	658.950	27.700	659.550	32.300
GR	659.540	43.900	659.280	49.300	658.910	79.600	658.230	108.500	658.320	138.800
GR	656.850	163.900	657.610	175.450	658.990	178.890	659.300	185.560	659.420	187.060
GR	656.880	198.500	655.430	204.490	654.630	206.500	654.700	208.500	655.430	209.300
GR	656.490	214.910	659.870	219.400	659.960	219.400	660.000	250.000	659.000	300.000
GR	659.000	375.000	.000	.000	.000	.000	.000	.000	.000	.000
NC	.000	.000	.000	.300	.500	.000	.000	.000	.000	.000
X1	16.000	22.000	194.600	217.000	30.000	20.000	30.000	.000	.000	.000
X3	10.000	.000	.000	180.000	.000	340.000	.000	.000	.000	.000
GR	660.000	20.000	659.000	70.000	658.920	100.000	658.920	120.000	658.970	140.000
GR	659.120	160.000	659.270	180.000	659.380	191.400	658.920	193.890	658.800	194.600
GR	658.000	194.900	656.070	199.400	655.820	202.300	655.370	206.100	655.470	209.500
GR	655.820	212.200	656.760	216.950	658.870	217.000	658.820	217.400	659.430	219.800
GR	659.000	250.000	659.000	350.000	.000	.000	.000	.000	.000	.000
X1	15.200	23.000	199.900	219.300	1.000	1.000	1.000	.000	.000	.000
X3	.000	.000	.000	180.000	.000	300.000	.000	.000	.000	.000
BT	2.000	199.900	659.690	658.770	219.300	659.690	658.770	.000	.000	.000
GR	660.000	20.000	659.000	70.000	658.920	120.000	658.970	140.000	659.120	160.000
GR	659.270	180.000	659.450	199.900	658.770	199.900	658.010	200.100	656.540	203.100
GR	655.850	206.500	655.550	209.600	658.770	209.600	658.770	211.000	655.440	211.000
GR	655.440	214.700	655.850	218.100	656.270	219.200	658.770	219.300	659.450	219.300
GR	659.700	240.000	659.000	250.000	659.000	350.000	.000	.000	.000	.000
X1	15.100	.000	.000	.000	9.000	9.000	9.000	.000	.000	.000
X3	.000	.000	.000	180.000	.000	300.000	.000	.000	.000	.000
BT	2.000	199.900	659.690	658.770	219.300	659.690	658.770	.000	.000	.000
X1	14.000	21.000	199.900	219.300	1.000	1.000	1.000	.000	.000	.000
X3	10.000	.000	.000	180.000	.000	300.000	.000	.000	.000	.000
GR	660.000	20.000	659.000	70.000	658.920	100.000	658.920	120.000	658.970	140.000
GR	659.120	160.000	659.270	180.000	659.680	195.950	659.510	199.900	658.010	200.100
GR	656.540	203.100	655.950	206.500	655.440	214.700	655.440	214.700	655.800	218.100
GR	656.270	219.200	658.770	219.300	659.420	221.900	659.530	231.400	659.000	250.000

GR	659.000	350.000	.000	.000	.000	.000	.000	.000	.000	.000
NC	.200	.200	.040	.000	.000	.000	.000	.000	.000	.000
X1	13.000	14.000	244.100	275.000	40.000	20.000	30.000	.000	.000	.000
X3	.000	.000	.000	200.000	.000	300.000	.000	.000	.000	.000
GR	660.000	.000	660.000	85.000	659.000	90.000	659.000	240.000	660.030	244.100
GR	657.050	248.500	655.950	255.100	655.480	257.000	655.550	258.800	655.950	261.200
GR	656.920	266.300	657.800	270.200	659.310	275.000	659.500	375.000	.000	.000
NC	.200	.100	.000	.100	.300	.000	.000	.000	.000	.000
X1	12.200	11.000	300.000	325.000	90.000	110.000	140.000	.000	.000	.000
X3	.000	.000	.000	180.000	.000	.000	.000	.000	.000	.000
GR	661.000	.000	660.000	50.000	660.000	100.000	659.000	200.000	659.000	290.000
GR	660.000	300.000	659.000	310.000	655.000	315.000	659.000	320.000	660.000	325.000
GR	665.000	335.000	.000	.000	.000	.000	.000	.000	.000	.000
X1	12.100	10.000	100.000	130.000	160.000	250.000	250.000	.000	.000	.000
X3	.000	.000	.000	85.000	.000	.000	.000	.000	.000	.000
GR	661.000	.000	660.000	70.000	660.000	100.000	657.000	110.000	656.000	115.000
GR	657.000	120.000	659.000	130.000	660.000	150.000	661.000	170.000	662.000	180.000
NC	.060	.060	.000	.300	.500	.000	.000	.000	.000	.000
X1	11.000	15.000	341.440	361.660	100.000	115.000	115.000	.000	.000	.000
X3	10.000	.000	.000	330.000	.000	370.000	.000	661.500	661.500	.000
GR	661.290	239.000	661.290	239.800	661.290	307.400	661.450	337.220	661.070	341.440
GR	657.940	341.860	657.810	342.400	657.030	347.700	657.070	351.800	657.810	356.490
GR	659.070	361.660	661.070	361.660	661.340	364.600	661.290	394.800	662.080	481.900
NH	.000	1.600	1.400	.000	10.000	.000	53.000	1.500	657.000	657.000
X1	9.000	18.000	332.500	352.000	10.000	10.000	10.000	.000	.000	.000
X2	.000	.000	1.000	660.500	661.500	.000	.000	.000	.000	.000
X3	10.000	.000	.000	330.000	.000	370.000	.000	661.500	661.500	.000
BT	14.000	229.400	661.250	660.750	238.100	661.150	659.950	249.900	661.350	659.900
BT	292.300	661.500	661.090	326.800	661.550	661.430	331.100	661.550	661.230	332.500





BT	661.560	660.470	332.500	661.700	660.470	352.000	661.700	660.470	352.000	661.540
BT	660.470	352.100	661.540	660.810	365.300	661.550	661.160	429.290	661.850	661.420
GR	479.160	662.000	662.000	.000	.000	.000	.000	.000	.000	.000
GR	660.750	229.400	659.950	238.100	659.990	249.900	661.080	292.300	661.430	326.800
GR	461.210	321.100	660.470	332.500	657.560	336.300	657.070	341.700	657.070	345.700
GR	657.570	348.400	659.130	351.600	660.470	352.000	660.810	352.100	661.160	365.300
GR	661.420	429.290	662.000	479.160	662.640	525.030	.000	.000	.000	.000
X1	8.000	23.000	142.000	179.600	30.000	10.000	25.000	.000	.000	.000
X3	10.000	.000	.000	90.000	.000	190.000	.000	661.500	.000	.000
GR	663.390	.000	662.380	30.000	661.320	63.200	661.180	92.500	661.980	94.600
GR	662.070	98.000	661.490	103.200	661.110	122.300	661.310	141.000	661.930	142.000
GR	657.700	149.100	657.270	153.100	657.270	157.100	657.700	162.400	659.860	173.200
GR	661.160	178.600	661.420	179.600	661.300	192.700	660.170	199.900	660.330	225.300
GR	661.720	265.800	662.290	279.900	663.760	295.200	.000	.000	.000	.000

1 02-20-91 09:46:57 PAGE 5

NC	.000	.000	.000	.100	.300	.000	.000	.000	.000	.000
X1	7.100	8.000	40.000	75.000	190.000	170.000	190.000	.000	.000	.000
X3	.000	.000	.000	10.000	.000	80.000	.000	.000	.000	.000
GR	663.000	.000	660.000	20.000	659.000	40.000	658.000	55.000	657.000	60.000
GR	658.000	65.000	660.000	75.000	663.000	85.000	.000	.000	.000	.000
X1	7.000	16.000	35.200	66.200	170.000	190.000	200.000	.000	.000	.000
X3	.000	.000	.000	.000	.000	80.000	.000	.000	.000	.000
GR	663.660	.000	660.080	7.200	659.970	21.800	659.740	35.200	658.570	48.600
GR	658.320	51.200	658.480	52.800	658.420	54.200	658.200	56.300	658.180	57.700
GR	658.580	58.500	659.170	59.800	659.370	66.200	661.770	80.700	664.250	95.100
GR	668.270	106.800	.000	.000	.000	.000	.000	.000	.000	.000
X1	6.100	7.000	.000	50.000	180.000	170.000	210.000	.000	.000	.000
GR	665.000	.000	660.000	20.000	658.500	30.000	660.000	40.000	663.000	50.000
GR	664.000	60.000	665.000	70.000	.000	.000	.000	.000	.000	.000

NC	.040	.040	.000	.300	.500	.000	.000	.000	.000	.000
X1	5.000	20.000	89.000	107.500	150.000	70.000	140.000	.000	.000	.000
X3	10.000	.000	.000	70.000	.000	150.000	.000	663.000	661.000	.000
GR	665.460	.000	664.760	33.300	663.460	66.800	662.780	86.380	662.360	89.000
GR	661.560	89.300	660.360	96.000	659.460	97.400	658.960	98.700	658.660	103.200
GR	659.060	107.500	661.880	107.500	661.830	114.000	662.400	117.500	662.350	120.000
GR	661.660	149.500	661.600	160.000	662.500	180.000	663.000	195.000	665.000	215.000
X1	4.230	23.000	89.000	107.500	1.000	1.000	.000	.000	.000	.000
X3	.000	.000	.000	.000	.000	195.000	.000	.000	.000	.000
BT	-9.000	66.800	663.460	663.460	86.400	663.050	662.780	89.000	662.990	661.980
BT	.000	89.000	663.210	661.980	107.500	663.000	661.880	114.000	662.930	661.830
BT	.000	114.000	662.720	661.830	117.500	662.550	662.400	120.000	662.350	662.350
GR	665.460	.000	664.760	33.300	663.460	66.800	662.780	86.400	661.980	89.000
GR	661.560	89.300	660.360	96.000	659.460	97.400	658.960	98.700	658.660	103.200
GR	659.060	107.500	661.880	107.500	661.830	114.000	662.400	117.500	662.350	120.000
GR	661.830	114.000	662.400	117.500	662.350	120.000	661.750	140.000	661.570	160.000
GR	662.490	180.000	663.000	195.000	665.000	215.000	.000	.000	.000	.000

X1	4.190	26.000	64.890	83.500	6.000	6.000	6.000	.000	.000	.000
X3	.000	.000	.000	.000	.000	160.000	.000	.000	.000	.000
BT	8.000	36.240	663.640	663.640	62.260	663.050	662.980	64.890	662.990	662.730
BT	64.900	663.200	661.980	83.500	663.000	661.850	89.920	662.930	661.820	89.930
BT	662.720	662.300	662.550	662.550	.000	.000	.000	.000	.000	.000
GR	665.210	.000	663.640	36.240	662.980	62.260	662.730	64.890	661.980	64.900
GR	661.470	65.020	660.290	70.790	660.200	71.000	661.950	71.000	661.950	71.610
GR	659.490	71.610	658.850	73.220	658.890	78.750	659.460	80.100	659.940	82.260
GR	660.200	83.500	661.850	83.500	661.820	89.920	662.030	89.930	662.550	92.500
GR	662.330	95.000	661.750	113.000	661.570	135.000	662.980	155.000	663.000	170.000
GR	665.000	190.000	.000	.000	.000	.000	.000	.000	.000	.000

1 02-20-91 09:46:57 PAGE 6

X1	3.900	19.000	64.890	83.500	1.000	1.000	1.000	.000	.000	.000
X3	10.000	.000	.000	50.000	.000	160.000	.000	.000	.000	.000
GR	665.230	.000	663.640	36.240	662.980	62.260	662.730	64.890	661.470	65.020
GR	660.290	70.790	659.490	71.610	658.850	78.750	658.890	80.100	659.460	82.260
GR	660.200	83.500	661.140	89.820	662.030	89.930	662.610	92.870	661.460	121.940
GR	661.600	135.000	662.500	155.000	663.000	170.000	665.000	190.000	.000	.000

NC	.060	.060	.000	.000	.000	.000	.000	.000	.000	.000
X1	2.900	23.000	44.200	60.700	20.000	20.000	20.000	.000	.000	.000
GR	665.470	.000	663.870	15.000	663.170	31.300	662.170	35.600	662.180	42.850
GR	662.170	44.200	661.170	47.400	660.570	50.100	659.470	50.300	659.170	50.700
GR	658.870	54.500	659.000	56.600	659.470	58.900	660.170	60.700	660.470	68.400
GR	660.880	73.500	660.570	88.200	661.270	98.000	661.270	112.200	660.870	128.200
GR	660.470	144.800	662.870	152.400	663.970	162.600	.000	.000	.000	.000

NC	.000	.000	.000	.100	.300	.000	.000	.000	.000	.000
X1	1.190	10.000	20.000	65.000	115.000	100.000	115.000	.000	.000	.000
GR	665.000	.000	663.000	10.000	663.000	20.000	661.000	30.300	660.000	40.000
GR	659.000	45.000	660.000	50.000	661.000	65.000	662.000	90.000	665.000	110.000

X1	1.900	14.000	368.800	395.600	115.000	190.000	180.000	.000	.000	.000
X3	.000	.000	.000	300.000	.000	.000	.000	.000	.000	.000
GR	665.300	255.000	664.000	265.000	663.000	305.000	662.000	335.000	661.900	341.700
GR	660.870	368.800	660.340	370.000	659.320	376.000	660.310	377.700	660.360	381.240
GR	664.940	388.100	667.100	391.800	667.040	395.600	668.510	400.270	.000	.000
EJ	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

1 02-20-91 09:46:57 PAGE 7

SECCNO	DEPTH	CHWEL	CRIMS	WSELK	EG	HV	HL	OLOSS	BANK	ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	HL	TWA	LEFT/RIGHT	
TIME	VCH	VCH	VROB	XNL	XNCH	XNR	MTN	EIMN		
SLOPE	XLOBL	KLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST	

\*PROF 1

CCHW=	.100	CEHW=	.300							
*SECCNO	1.000									
3720	CRITICAL	DEPTH	ASSUMED							
1.00	2.51	655.26	655.26	653.50	656.08	.82	.00	.00	655.00	
273.	0.	273.	0.	1.	68.	0.	0.	0.	659.00	
.00	.27	4.01	.00	1.00	.055	.150	.000	652.75	72.19	





0 .025316 0. 0. 0. 0 19 0 .00 49.11 121.30  
 FLOW DISTRIBUTION FOR SECTO= 1.00 CWSL= 655.26  
 STA= 72. 80. 140.  
 PER Q= .1 99.9  
 AREA= 1.0 60.1  
 VEL= .3 4.0

\*SECTO 1.100  
 1.10 3.09 655.84 .00 .00 656.26 .42 .15 .04 655.00  
 273. 4. 269. 0. 10. 93. 0. 1. 1. 659.00  
 .00 .37 2.90 .00 .150 .055 .150 .000 652.75 54.93  
 .009660 10. 10. 10. 3 9 0 0 69.24 124.18

0 FLOW DISTRIBUTION FOR SECTO= 1.10 CWSL= 655.84  
 STA= 55. 80. 140.  
 PER Q= 1.4 98.6  
 AREA= 10.5 92.7  
 VEL= .4 2.9

\*SECTO 1.200  
 1.20 3.36 656.11 .00 .00 656.43 .32 .16 .01 655.00  
 273. 7. 266. 0. 19. 105. 0. 3. 2. 659.00  
 .00 .38 2.53 .00 .150 .055 .150 .000 652.75 47.73  
 .006449 20. 20. 20. 2 0 0 0 77.84 125.57

0 FLOW DISTRIBUTION FOR SECTO= 1.20 CWSL= 656.11  
 STA= 48. 80. 140.  
 PER Q= 2.6 97.4  
 AREA= 18.5 105.1  
 VEL= .4 2.5

1 02-20-91 09:46:57 PAGE 8

SECTO	DEPTH	CWSL	CRWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	MTN	ELMIN	SSTA
SLOPE	KLOBL	KLCH	KLOBR	ITRIAL	IDC	ICONT	CORAR	TOPNID	ENDST

\*SECTO 1.300  
 1.30 3.53 656.28 .00 .00 656.55 .27 .12 .00 655.00  
 273. 9. 264. 0. 24. 113. 0. 6. 4. 659.00  
 .01 .40 2.34 .00 .150 .055 .150 .000 652.75 44.52  
 .005173 20. 20. 20. 0 0 0 0 81.85 126.37

0 FLOW DISTRIBUTION FOR SECTO= 1.30 CWSL= 656.28  
 STA= 45. 50. 80. 140.  
 PER Q= .0 3.4 96.5  
 AREA= .8 23.2 112.5  
 VEL= .1 .4 2.3

\*SECTO 2.000  
 2.00 3.68 656.60 .00 .00 656.86 .26 .31 .00 654.00  
 273. 44. 229. 0. 66. 94. 0. 15. 9. 659.00  
 .01 .67 2.45 .00 .150 .055 .150 .000 652.92 19.01  
 .005076 60. 60. 60. 2 0 0 0 81.39 100.40

0 FLOW DISTRIBUTION FOR SECTO= 2.00 CWSL= 656.60  
 STA= 19. 25. 45. 65. 110.  
 PER Q= .1 4.1 12.0 83.8  
 AREA= 1.8 22.0 42.0 93.5  
 VEL= .2 .5 .8 2.4

\*SECTO 3.100  
 3470 ENCROACHMENT STATIONS= .0 125.0 TYPE= 1 TARGET= 124.999  
 3.10 4.61 657.61 .00 .00 657.75 .14 .88 .01 655.00  
 273. 25. 248. 0. 57. 144. 0. 60. 30. 100000.00  
 .06 .45 1.72 .00 .150 .055 .150 .000 653.00 25.83  
 .002411 225. 265. 200. 2 0 0 0 95.93 121.76

0 FLOW DISTRIBUTION FOR SECTO= 3.10 CWSL= 657.61  
 STA= 26. 35. 55. 70. 125.  
 PER Q= .2 2.9 6.2 90.8  
 AREA= 2.8 22.2 31.7 144.2  
 VEL= .1 .4 .5 1.7

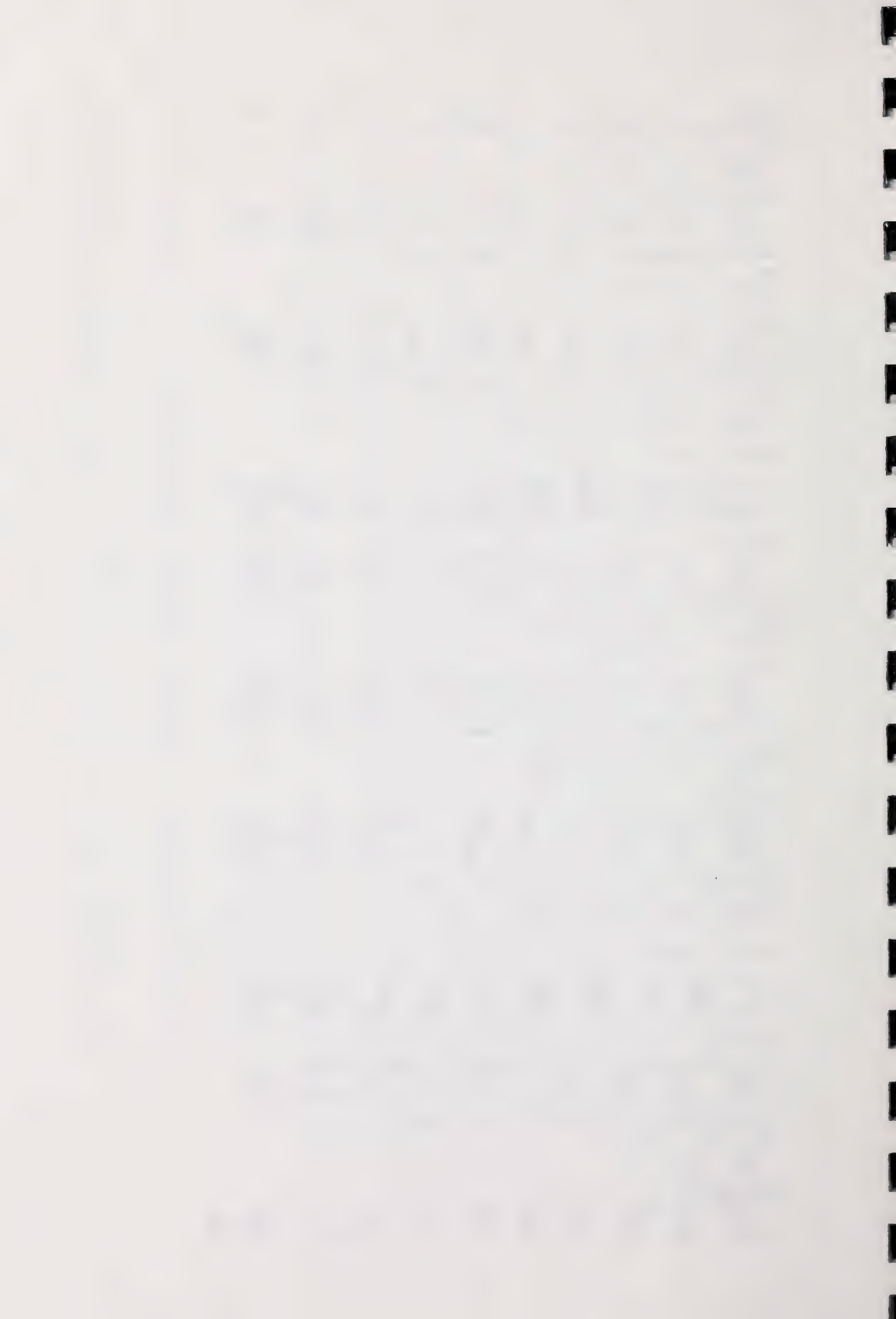
1 02-20-91 09:46:57 PAGE 9

SECTO	DEPTH	CWSL	CRWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	MTN	ELMIN	SSTA
SLOPE	KLOBL	KLCH	KLOBR	ITRIAL	IDC	ICONT	CORAR	TOPNID	ENDST

\*SECTO 3.200  
 3470 ENCROACHMENT STATIONS= .0 200.0 TYPE= 1 TARGET= 199.999  
 3.20 4.98 658.48 .00 .00 658.75 .30 .99 .01 659.00  
 273. 0. 259. 14. 0. 104. 46. 109. 56. 659.00  
 .09 .00 2.50 .30 .150 .055 .150 .000 653.50 66.94  
 .005209 375. 290. 100. 2 0 0 0 133.06 200.00

0 FLOW DISTRIBUTION FOR SECTO= 3.20 CWSL= 658.48  
 STA= 67. 105. 200.  
 PER Q= 95.0 5.0  
 AREA= 103.6 46.0  
 VEL= 2.5 .3

1490 NH CARD USED  
 \*SECTO 3.300  
 3.30 5.08 659.08 .00 .00 659.10 .02 .29 .03 657.00  
 273. 153. 120. 0. 341. 130. 0. 180. 93. 659.00  
 .19 .45 .92 .02 .094 .055 .150 .000 654.00 55.60  
 .000545 230. 230. 200. 2 0 0 0 201.74 257.34



0  
 FLOW DISTRIBUTION FOR SECNO= 3.30 CWSL= 659.08  
 STA= 56. 70. 75. 80. 90. 205. 210. 250. 257.  
 PER Q= 3.7 9.7 9.7 10.0 22.1 1.0 43.9 .0  
 AREA= 15.9 22.9 22.9 30.7 238.4 10.4 130.4 .3  
 VEL= .6 1.2 1.2 .9 .3 .3 .9 .0  
 CCHV= .300 CCHV= .500  
 1490 NR CARD USED  
 \*SECNO 4.100  
 3280 CROSS SECTION 4.10 EXTENDED .44 METERS  
 3470 ENCROACHMENT STATIONS= 150.0 450.0 TYPE= 1 TARGET= 300.000  
 4.10 5.14 659.14 .00 .00 659.17 .02 .07 .00 658.00  
 273. 119. 148. 6. 318. 168. 23. 248. 128. 657.95  
 .25 .37 .88 .27 .082 .055 .055 .000 654.00 150.00  
 .000404 130. 160. 150. 2 0 0 .00 300.00 450.00

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 1 02-20-91 09:46:57 PAGE 10

SECNO	DEPTH	CWSL	CRWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	GLOB	OCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	MTN	ELWIN	SSTA
SLOPE	KLOBL	KLCH	KLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

0  
 FLOW DISTRIBUTION FOR SECNO= 4.10 CWSL= 659.14  
 STA= 150. 200. 205. 207. 212. 216. 218. 222. 370. 413. 450.  
 PER Q= 3.0 3.9 3.6 9.6 7.2 3.4 3.6 9.3 54.1 2.3  
 AREA= 57.2 15.3 24.7 24.7 19.0 9.3 13.2 170.1 168.4 23.3  
 VEL= .1 .7 1.0 1.1 1.0 1.0 .7 .1 .9 .3  
 1490 NR CARD USED  
 \*SECNO 4.200  
 3280 CROSS SECTION 4.20 EXTENDED .45 METERS  
 3470 ENCROACHMENT STATIONS= 150.0 450.0 TYPE= 1 TARGET= 300.000  
 4.20 5.14 659.14 .00 .00 659.18 .04 .00 .01 658.70  
 273. 120. 146. 7. 177. 147. 17. 250. 129. 658.70  
 .25 .68 .99 .41 .066 .055 .055 .000 654.00 150.00  
 .001531 5. 5. 5. 0 0 0 .00 300.00 450.00

0  
 FLOW DISTRIBUTION FOR SECNO= 4.20 CWSL= 659.14  
 STA= 150. 204. 207. 209. 212. 214. 218. 222. 370. 411. 450.  
 PER Q= 5.2 7.8 3.8 5.6 3.6 9.7 4.2 4.2 53.3 2.6  
 AREA= 33.6 12.9 10.1 13.5 9.5 17.7 12.8 67.5 146.9 17.4  
 VEL= .4 1.6 1.0 1.1 1.0 1.5 .9 .2 1.0 .4  
 1490 NR CARD USED  
 \*SECNO 4.300  
 3280 CROSS SECTION 4.30 EXTENDED .45 METERS  
 3470 ENCROACHMENT STATIONS= 150.0 450.0 TYPE= 1 TARGET= 300.000  
 4.30 5.15 659.15 .00 .00 659.19 .04 .01 .00 658.70  
 273. 120. 146. 7. 178. 147. 17. 252. 131. 658.70  
 .26 .68 .99 .41 .066 .055 .055 .000 654.00 150.00  
 .001530 6. 6. 6. 0 0 0 .00 300.00 450.00

0  
 FLOW DISTRIBUTION FOR SECNO= 4.30 CWSL= 659.15  
 STA= 150. 204. 207. 209. 212. 214. 218. 222. 370. 411. 450.  
 PER Q= 5.2 7.8 3.8 5.6 3.6 9.6 4.2 4.2 53.3 2.6  
 AREA= 33.6 12.9 10.1 13.5 9.5 17.7 12.8 67.5 146.9 17.4  
 VEL= .4 1.6 1.0 1.1 1.0 1.5 .9 .2 1.0 .4

1 02-20-91 09:46:57 PAGE 11

SECNO	DEPTH	CWSL	CRWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	GLOB	OCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	MTN	ELWIN	SSTA
SLOPE	KLOBL	KLCH	KLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NR CARD USED  
 \*SECNO 4.400  
 3280 CROSS SECTION 4.40 EXTENDED .46 METERS  
 3470 ENCROACHMENT STATIONS= 150.0 450.0 TYPE= 1 TARGET= 300.000  
 4.40 5.17 659.17 .00 .00 659.19 .02 .00 .00 658.00  
 273. 129. 138. 6. 323. 154. 21. 254. 132. 658.47  
 .26 .40 .90 .26 .082 .055 .055 .000 654.00 150.00  
 .000462 5. 5. 5. 1 0 0 .00 300.00 450.00  
 0  
 FLOW DISTRIBUTION FOR SECNO= 4.40 CWSL= 659.17  
 STA= 150. 200. 204. 207. 212. 216. 218. 222. 370. 411. 450.  
 PER Q= 3.3 3.1 5.0 10.3 7.7 3.7 3.9 10.2 50.7 2.1  
 AREA= 58.2 11.4 13.7 24.8 19.1 9.3 13.3 173.0 154.0 21.4  
 VEL= .2 .7 1.0 1.1 1.1 1.1 .8 .2 .9 .3  
 1490 NR CARD USED  
 \*SECNO 4.500  
 3280 CROSS SECTION 4.50 EXTENDED .18 METERS  
 3470 ENCROACHMENT STATIONS= 390.0 480.0 TYPE= 1 TARGET= 90.000  
 4.50 4.68 659.18 .00 .00 659.36 .18 .09 .08 660.00  
 152. 0. 152. 0. 0. 80. 0. 285. 149. 660.00  
 .27 .00 1.89 .00 .082 .055 .055 .000 654.50 392.05  
 .003847 100. 120. 50. 2 0 0 .00 35.50 421.54  
 0  
 FLOW DISTRIBUTION FOR SECNO= 4.50 CWSL= 659.18  
 STA= 392. 430.  
 PER Q= 100.0  
 AREA= 80.4



VEL= 1.9

CCHV= .100 CSHV= .300  
\*SECHO 17.000

3265 DIVIDED FLOW

1 02-20-91 09:46:57

PAGE 12

SECHO	DEPTH	CWSEL	CRWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	MTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3280 CROSS SECTION 17.00 EXTENDED .62 METERS

3470 ENCROACHMENT STATIONS= 180.0 340.0 TYPE= 1 TARGET= 160.000  
17.00 4.99 659.62 .00 .00 659.76 .14 .39 .00 659.42  
152. 0. 146. 6. 3. 86. 34. 297. 156. 659.96  
.30 .17 1.70 .16 .150 .055 .200 .000 654.63 180.00  
.002473 250. 130. 60. 2 0 0 .00 109.09 340.00

0 FLOW DISTRIBUTION FOR SECHO= 17.00 CWSEL= 659.62

STA= 180. 186. 187. 219. 300. 340.  
PER Q= .3 .0 96.1 .7 2.9  
AREA= 2.4 .4 85.9 9.6 24.8  
VEL= .2 .1 1.7 .1 .2

CCHV= .300 CSHV= .500

\*SECHO 16.000

3280 CROSS SECTION 16.00 EXTENDED .70 METERS

3470 ENCROACHMENT STATIONS= 180.0 340.0 TYPE= 1 TARGET= 160.000  
16.00 4.32 659.69 .00 .00 659.83 .14 .06 .00 658.80  
152. 1. 138. 13. 6. 80. 79. 301. 159. 658.87  
.30 .17 1.72 .16 .150 .055 .200 .000 655.37 180.00  
.001928 30. 30. 20. 1 0 0 .00 160.00 340.00

0 FLOW DISTRIBUTION FOR SECHO= 16.00 CWSEL= 659.69

STA= 180. 191. 194. 195. 217. 217. 220. 250. 340.  
PER Q= .4 .2 .1 90.8 .0 .1 1.3 7.1  
AREA= 4.2 1.4 .6 80.4 .3 1.4 14.6 62.7  
VEL= .1 .2 .3 1.7 .2 .1 .1 .2

\*SECHO 15.200

3265 DIVIDED FLOW

3280 CROSS SECTION 15.20 EXTENDED .59 METERS

1 02-20-91 09:46:57

PAGE 13

SECHO	DEPTH	CWSEL	CRWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	MTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3370 NORMAL BRIDGE, NRD= 2 MIN ELTRD= 659.69 MAX ELIC= 658.77

3470 ENCROACHMENT STATIONS= 180.0 300.0 TYPE= 1 TARGET= 120.000  
15.20 4.15 659.59 .00 .00 659.93 .34 .00 .10 659.45  
152. 2. 134. 16. 5. 49. 33. 301. 159. 659.45  
.30 .36 2.75 .48 .150 .055 .200 .000 655.44 180.00  
.021114 1. 1. 3 0 -15.95 109.52 300.00

0 FLOW DISTRIBUTION FOR SECHO= 15.20 CWSEL= 659.59

STA= 180. 200. 219. 231. 250. 300.  
PER Q= 1.1 88.4 .1 .5 9.9  
AREA= 4.6 48.9 .8 2.5 29.6  
VEL= .4 2.7 .1 .3 .5

\*SECHO 15.100

3280 CROSS SECTION 15.10 EXTENDED 1.00 METERS

3370 NORMAL BRIDGE, NRD= 2 MIN ELTRD= 659.69 MAX ELIC= 658.77

3470 ENCROACHMENT STATIONS= 180.0 300.0 TYPE= 1 TARGET= 120.000  
15.10 4.56 660.00 .00 .00 660.15 .15 .16 .06 659.45  
152. 8. 108. 36. 13. 55. 65. 302. 161. 659.45  
.30 .59 1.98 .55 .150 .055 .200 .000 655.44 180.00  
.014930 9. 9. 9. 3 0 0 -17.85 120.00 300.00

0 FLOW DISTRIBUTION FOR SECHO= 15.10 CWSEL= 660.00

STA= 180. 200. 219. 240. 250. 300.  
PER Q= 4.9 71.3 2.0 2.0 19.8  
AREA= 12.7 54.9 8.8 6.5 50.0  
VEL= .6 2.0 .3 .5 .6

\*SECHO 14.000

3280 CROSS SECTION 14.00 EXTENDED 1.02 METERS

1 02-20-91 09:46:57

PAGE 14

SECHO	DEPTH	CWSEL	CRWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	MTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST





3470 ENCROACHMENT STATIONS= 140.0 300.0 TYPE= 1 TARGET= 120.000  
 14.00 4.58 660.02 .00 .00 660.16 .14 .00 659.51  
 152. 2. 135. 15. 10. 78. 73. 302. 161. 658.77  
 .30 .18 1.74 .20 .150 .055 .200 .009 655.44 180.00  
 .001880 1. 1. 0 0 .00 120.00 300.00

0 FLOW DISTRIBUTION FOR SECNO= 14.00 CWSL= 660.02

STA= 180. 196. 200. 219. 222. 231. 250. 300.  
 PER Q= 1.1 .2 89.0 .3 1.7 7.3  
 AREA= 8.7 1.7 77.6 2.4 5.2 14.1 51.1  
 VEL= .2 .2 1.7 .2 .1 .2

\*SECNO 13.000  
 3280 CROSS SECTION 13.00 EXTENDED .60 METERS

3470 ENCROACHMENT STATIONS= 200.0 330.0 TYPE= 1 TARGET= 130.000  
 13.00 4.62 660.10 .00 .00 660.20 .10 .04 660.03  
 152. 7. 140. 5. 46. 94. 41. 307. 164. 659.31  
 .31 .15 1.48 .12 .200 .040 .200 .000 655.48 200.00  
 .000848 40. 30. 20. 2 0 0 .00 130.00 330.00

0 FLOW DISTRIBUTION FOR SECNO= 13.00 CWSL= 660.10

STA= 200. 240. 244. 275. 330.  
 PER Q= 4.4 .2 92.3 3.2  
 AREA= 44.0 2.4 94.5 40.6  
 VEL= .2 .1 1.5 .1

CCHV= .100 CCHV= .300  
 \*SECNO 12.000

3470 ENCROACHMENT STATIONS= 140.0 335.0 TYPE= 1 TARGET= -180.000  
 12.20 5.22 660.22 .00 .00 660.33 .11 .12 .00 660.00  
 152. 24. 128. 0. 139. 80. 0. 330. 178. 660.00  
 .34 .17 1.59 .00 .200 .040 .100 .000 655.00 180.00  
 .000965 90. 140. 110. 2 0 0 .00 145.43 325.43

0  
 1 02-20-91 09:46:57

PAGE 15

SECNO	DEPTH	CWSL	CRWS	WSLK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	MTN	ELMIN	3STA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 12.20 CWSL= 660.22

STA= 180. 200. 290. 300. 325.  
 PER Q= 2.4 12.8 .6 84.3  
 AREA= 22.3 109.5 7.2 80.4  
 VEL= .2 .2 .1 1.6

\*SECNO 12.100

3470 ENCROACHMENT STATIONS= 85.0 180.0 TYPE= 1 TARGET= -85.000  
 12.10 4.46 660.46 .00 .00 660.60 .14 .27 .01 660.00  
 152. 1. 144. 7. 7. 84. 21. 365. 200. 659.00  
 .38 .10 1.72 .32 .200 .040 .100 .000 656.00 85.00  
 .001255 160. 250. 250. 2 0 0 .00 74.17 159.17

0 FLOW DISTRIBUTION FOR SECNO= 12.10 CWSL= 660.46

STA= 85. 100. 130. 150. 159.  
 PER Q= .5 95.0 4.3 .2  
 AREA= 6.9 83.8 19.2 2.1  
 VEL= .1 1.7 .3 .1

CCHV= .300 CCHV= .500  
 \*SECNO 11.000

3470 ENCROACHMENT STATIONS= 330.0 370.0 TYPE= 1 TARGET= 40.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELREA= 661.50 ELREA= 661.50

11.00 3.51 660.58 .00 .00 660.92 .34 .22 .10 661.07  
 152. 0. 152. 0. 0. 59. 0. 375. 205. 661.07  
 .39 .00 2.59 .00 .060 .040 .060 .000 657.07 341.51  
 .003249 100. 115. 115. 0 0 0 .00 20.15 361.66

0 FLOW DISTRIBUTION FOR SECNO= 11.00 CWSL= 660.58

STA= 342. 362.  
 PER Q= 100.0  
 AREA= 58.8  
 VEL= 2.6

1 02-20-91 09:46:57

PAGE 16

SECNO	DEPTH	CWSL	CRWS	WSLK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	MTN	ELMIN	3STA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

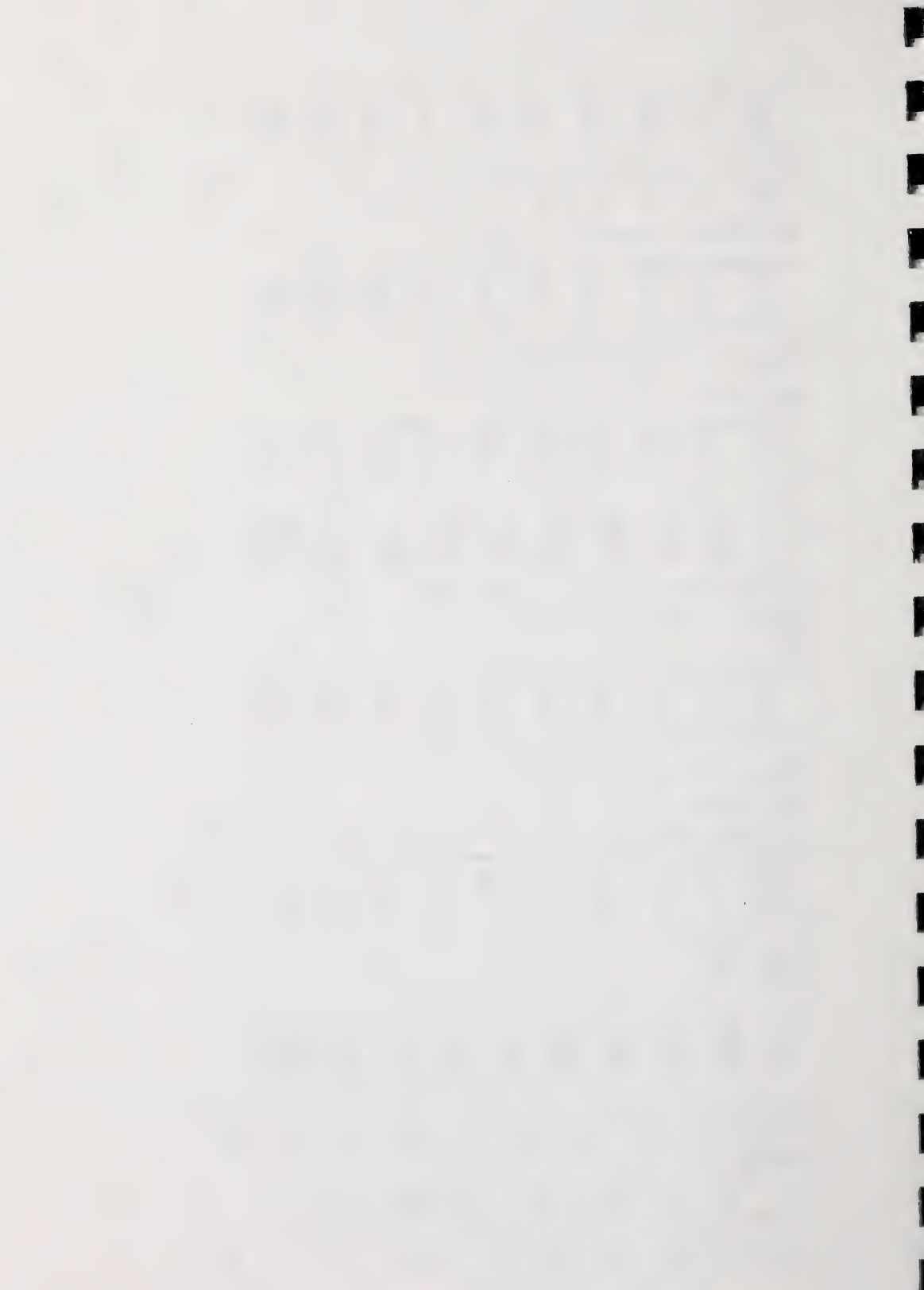
SPECIAL BRIDGE

SB KK .00 KNOR 1.60 COFQ 1.40 ADLEN .00 BWC 10.00 BWP .00 BAREA 53.00 SS 1.50 ELCHU 657.00 ELCHD 657.00

\*SECNO 9.000  
 PRESSURE FLOW

EGPRS EGLWC H3 QWEIR QPR BAREA TRAPEZOID AREA ELLC ELTRD  
 661.25 660.94 .00 0. 152. 53. 53. 660.50 661.50

3470 ENCROACHMENT STATIONS= 330.0 370.0 TYPE= 1 TARGET= 40.000



3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELREA= 661.50 ELREA= 661.50

9.00	3.86	660.93	.00	.00	661.25	.32	.33	.00	660.47
152.	0.	152.	0.	0.	61.	0.	375.	205.	660.47
.39	.00	2.59	.00	.000	.040	.000	.000	657.07	332.50
.002559	10.	10.	10.	2	0	0	.00	19.50	352.00

0 FLOW DISTRIBUTION FOR SECNO= 9.00 CWSSEL= 660.93

STA= 333. 352.  
PER Q= 100.0  
AREA= 60.8  
VEL= 2.5

\*SECNO 8.000

3470 ENCROACHMENT STATIONS= 90.0 190.0 TYPE= 1 TARGET= 100.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELREA= 661.50 ELREA= 661.50

8.00	3.94	661.21	.00	.00	661.35	.14	.04	.05	661.39
152.	0.	152.	0.	0.	92.	0.	377.	206.	661.42
.39	.00	1.64	.00	.060	.040	.060	.000	657.27	142.34
.001311	30.	25.	10.	2	9	0	.00	36.47	178.81

0 02-20-91 09:46:57

PAGE 17

SECNO	DEPTH	CWSSEL	CRWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 8.00 CWSSEL= 661.21

STA= 142. 180.  
PER Q= 100.0  
AREA= 92.4  
VEL= 1.6

CCHV= .100 CEHV= .300  
\*SECNO 7.100

3470 ENCROACHMENT STATIONS= 10.0 80.0 TYPE= 1 TARGET= 70.000

7.10	4.44	661.44	.00	.00	661.50	.06	.01	659.00
152.	24.	126.	1.	46.	108.	3.	401.	216.
.44	.54	1.17	.29	.060	.040	.060	.000	657.00
.000497	190.	190.	170.	2	0	0	.00	69.41

0 FLOW DISTRIBUTION FOR SECNO= 7.10 CWSSEL= 661.44

STA= 10. 20. 40. 75. 80.  
PER Q= 1.4 14.8 83.2 .7  
AREA= 6.9 38.8 107.9 3.5  
VEL= .3 .6 1.2 .3

\*SECNO 7.000

3470 ENCROACHMENT STATIONS= .0 80.0 TYPE= 1 TARGET= 79.999

7.00	3.37	661.55	.00	.00	661.63	.08	.12	659.74
152.	31.	113.	7.	47.	82.	14.	429.	229.
.49	.66	1.39	.51	.060	.040	.060	.000	658.18
.000861	170.	200.	190.	2	0	0	.00	75.15

0 FLOW DISTRIBUTION FOR SECNO= 7.00 CWSSEL= 661.55

STA= 4. 7. 22. 35. 66. 79.  
PER Q= .5 9.5 10.4 74.7 4.9  
AREA= 2.2 22.3 22.8 81.7 14.4  
VEL= .4 .6 .7 1.4 .5

\*SECNO 6.100

6.10	3.23	661.73	.00	.00	662.05	.32	.34	.07	665.00
152.	0.	152.	0.	0.	61.	0.	450.	240.	663.00
.51	.00	2.51	.00	.060	.040	.060	.000	659.50	13.09
.004561	180.	210.	170.	2	0	0	.00	32.68	45.76

0 02-20-91 09:46:57

PAGE 18

SECNO	DEPTH	CWSSEL	CRWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 6.10 CWSSEL= 661.73

STA= 13. 50.  
PER Q= 100.0  
AREA= 60.5  
VEL= 2.5

CCHV= .300 CEHV= .500  
\*SECNO 5.000

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 70.0 150.0 TYPE= 1 TARGET= 80.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELREA= 663.00 ELREA= 661.00

5.00	3.68	662.34	.00	.00	662.74	.40	.65	.04	662.36
152.	0.	139.	13.	0.	48.	14.	458.	245.	661.88
.53	.00	2.92	.90	.040	.040	.040	.000	658.66	89.01
.004944	150.	140.	70.	2	0	0	.00	57.84	150.00

0 FLOW DISTRIBUTION FOR SECNO= 5.00 CWSSEL= 662.34

STA= 89. 108. 114. 117. 150. 150.  
PER Q= 91.6 2.3 .4 5.6 .2  
AREA= 47.7 3.2 .8 10.0 .3  
VEL= 2.9 1.1 .7 .9 .8



\*SECNO 4.290

3370 NORMAL BRIDGE,WRD= 9 MIN ELTRD= 662.35 MAX ELLC= 663.46

3470 ENCROACHMENT STATIONS=	0	185.0	TYPE=	1	TARGET=	184.999
4.29 3.98 662.64	.00	.00	662.81	.17	.01	661.98
152. 0. 77.	75.	0.	39.	44.	458.	661.88
.53 .00 1.96	1.70	.040	.040	.000	658.66	86.84
.006879 1. 1. 1. 4 0	0	-20.80	97.46	184.33		

0

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02-20-91 09:46:57

PAGE 19

SECNO	DEPTH	CWSL	CRIMS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTW	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 4.29 CWSL= 662.64

STA=	87.	108.	120.	140.	160.	180.	184.
PER Q=	50.4	.2	11.2	26.2	11.9	.1	
AREA=	39.0	.5	11.7	19.5	12.1	.3	
VEL=	2.0	.6	1.5	2.0	1.5	.4	

\*SECNO 4.190

3370 NORMAL BRIDGE,WRD= 8 MIN ELTRD= 662.55 MAX ELLC= 663.64

3470 ENCROACHMENT STATIONS=	0	160.0	TYPE=	1	TARGET=	159.999
4.19 3.85 662.70	.00	.00	662.86	.15	.04	662.73
152. 0. 69.	83.	0.	38.	49.	458.	661.85
.53 .00 1.80	1.69	.040	.040	.000	658.85	64.89
.006137 6. 6. 6. 2 0	0	-21.12	95.11	160.00		

0

1

FLOW DISTRIBUTION FOR SECNO= 4.19 CWSL= 662.70

STA=	65.	84.	93.	95.	115.	135.	155.	160.
PER Q=	45.5	.0	.3	13.0	27.6	13.3	.2	
AREA=	38.3	.2	.7	13.3	20.9	13.5	.6	
VEL=	1.8	.4	.8	1.5	2.0	1.5	.5	

\*SECNO 3.900

3470 ENCROACHMENT STATIONS=	50.0	160.0	TYPE=	1	TARGET=	110.000
3.90 3.93 662.78	.00	.00	662.88	.10	.00	662.73
152. 0. 92.	60.	0.	56.	68.	459.	660.20
.53 .01 1.65	.88	.040	.040	.000	658.85	64.38
.001144 1. 1. 1. 2 0	0	0	95.62	160.00		

0

1

FLOW DISTRIBUTION FOR SECNO= 3.90 CWSL= 662.78

STA=	64.	84.	90.	90.	93.	122.	135.	155.	160.
PER Q=	60.3	12.1	.0	.4	9.9	10.5	6.6	.2	
AREA=	55.7	13.3	.1	1.3	21.6	16.3	14.6	1.0	
VEL=	1.6	1.4	.2	.5	.7	1.0	.7	.3	

1

02-20-91 09:46:57

PAGE 20

SECNO	DEPTH	CWSL	CRIMS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTW	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 2.900	2.90	4.01	662.88	.00	.00	662.91	.03	.01	.02	662.17
152.	2.	49.	101.	7.	48.	180.	462.	248.	660.17	
.54	.26	1.02	.56	.060	.040	.060	.000	658.87	32.53	
.000447	20.	20.	20.	2	0	0	.00	119.99	152.52	

0

1

FLOW DISTRIBUTION FOR SECNO= 2.90 CWSL= 662.88

STA=	33.	44.	61.	68.	74.	88.	98.	112.	128.	145.	153.
PER Q=	1.2	32.4	8.6	4.4	12.3	7.0	7.3	10.0	14.5	2.4	
AREA=	7.2	48.2	19.7	11.3	31.7	19.2	22.9	29.0	36.7	9.2	
VEL=	.3	1.0	.7	.6	.6	.6	.5	.5	.6	.4	

CCHV=	.100	CEHV=	.300
*SECNO 1.190	1.19	3.92	662.92
152.	0.	130.	22.
.56	.00	1.25	.58
.000822	115.	115.	100.

0

1

FLOW DISTRIBUTION FOR SECNO= 1.19 CWSL= 662.92

STA=	20.	65.	90.	.5	96.
PER Q=	85.4	14.1	.5		
AREA=	103.8	35.5	2.8		
VEL=	1.3	.6	.3		

\*SECNO 1.900

3470 ENCROACHMENT STATIONS=	300.0	400.3	TYPE=	1	TARGET=	-300.000
1.90 3.75 663.07	.00	.00	663.23	.16	.21	660.87
152. 60. 92.	0.	67.	43.	0.	503.	271.
.59 .90 2.13	.00	.060	.040	.060	.000	659.32
.002228 115. 180.	190.	2	0	0	.00	83.17

0

1

FLOW DISTRIBUTION FOR SECNO= 1.90 CWSL= 663.07

STA=	302.	335.	349.	369.	396.
PER Q=	6.1	8.6	24.8	60.5	
AREA=	17.3	15.4	33.9	43.1	
VEL=	.5	.8	1.1	2.1	

1

02-20-91 09:46:57

PAGE 21





\*\*\*\*\*  
 REC2 RELEASE DATED NOV 76 UPDATED MAY 1984  
 ERROR CORR 01.02.03.04.05.06  
 MODIFICATION - 50.51.52.53.54.55.56  
 IBM-PC-XT VERSION AUGUST 1985  
 \*\*\*\*\*

NOTE- ASTERISK (\*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

Creek at Medicine Hat

SUMMARY PRINTOUT TABLE 150

SECNO	KLCH	ELTRD	ELLC	ELMIN	Q	CWSL	*CRWS	EG	10X*9	VCH	AREA	.01K	
*	1.000	.00	.00	.00	652.75	273.00	655.26	655.26	656.08	253.16	4.01	69.10	17.16
	1.100	10.00	.00	.00	652.75	273.00	655.84	.00	656.26	96.60	2.90	103.14	27.78
	1.200	20.00	.00	.00	652.75	273.00	656.11	.00	656.43	64.49	2.53	123.68	34.00
	1.300	30.00	.00	.00	652.75	273.00	656.28	.00	656.55	51.73	2.34	136.50	37.96
	2.000	60.00	.00	.00	652.92	273.00	656.60	.00	656.86	50.76	2.45	159.28	38.32
	3.100	265.00	.00	.00	653.00	273.00	657.61	.00	657.75	24.11	1.72	200.94	55.60
	3.200	290.00	.00	.00	653.50	273.00	658.48	.00	658.79	52.09	2.50	149.56	37.83
	3.300	210.00	.00	.00	654.00	273.00	659.08	.00	659.10	5.45	.92	471.87	116.98
	4.100	160.00	.00	.00	654.00	273.00	659.14	.00	659.17	4.04	.88	519.05	135.88
	4.200	5.00	.00	.00	654.00	273.00	659.14	.00	659.18	15.31	.99	341.72	69.77
	4.300	6.00	.00	.00	654.00	273.00	659.15	.00	659.19	15.30	.99	341.87	69.79
	4.400	5.00	.00	.00	654.00	273.00	659.17	.00	659.19	4.62	.90	498.15	127.01
	4.500	120.00	.00	.00	654.50	152.00	659.18	.00	659.36	38.47	1.89	80.36	24.51
	17.000	130.00	.00	.00	654.63	152.00	659.42	.00	659.76	24.73	1.70	123.02	30.57
	16.000	30.00	.00	.00	655.37	152.00	659.69	.00	659.83	19.28	1.72	165.61	34.62
	15.200	1.00	659.69	658.77	655.44	152.00	659.59	.00	659.93	211.14	2.75	86.44	10.46
	15.100	9.00	659.69	658.77	655.44	152.00	660.00	.00	660.15	149.30	1.98	132.82	12.44
	14.000	1.00	.00	.00	655.44	152.00	660.02	.00	660.16	18.80	1.74	160.85	35.06
	13.000	30.00	.00	.00	655.48	152.00	660.10	.00	660.20	8.48	1.48	181.48	32.21
	12.200	140.00	.00	.00	655.00	152.00	660.22	.00	660.33	9.65	1.59	219.52	48.94
	12.100	250.00	.00	.00	656.00	152.00	660.46	.00	660.60	12.55	1.72	111.91	42.91
	11.000	115.00	.00	.00	657.07	152.00	660.58	.00	660.92	32.89	2.59	58.76	26.50
	9.000	10.00	661.50	660.59	657.07	152.00	660.93	.00	661.25	25.59	2.50	60.84	30.05
	8.000	25.00	.00	.00	657.27	152.00	661.21	.00	661.35	13.11	1.64	92.42	41.98
	7.100	190.00	.00	.00	657.00	152.00	661.44	.00	661.50	4.97	1.17	157.16	68.15
	7.000	200.00	.00	.00	658.18	152.00	661.55	.00	661.63	8.61	1.39	143.33	51.81
	6.100	210.00	.00	.00	658.50	152.00	661.73	.00	662.05	45.61	2.51	60.52	22.51
	5.000	15.00	.00	.00	658.66	152.00	662.74	.00	662.74	49.44	2.92	62.02	21.62
	4.290	1.00	662.35	662.46	658.66	152.00	662.64	.00	662.81	68.79	1.96	83.27	18.33
	4.190	6.00	662.55	663.64	658.85	152.00	662.70	.00	662.86	61.37	1.80	87.38	19.40
	3.900	1.00	.00	.00	658.85	152.00	662.78	.00	662.88	11.44	1.65	123.97	44.94
	2.900	20.00	.00	.00	658.87	152.00	662.88	.00	662.91	4.47	1.02	235.22	71.90
	1.190	115.00	.00	.00	659.00	152.00	662.92	.00	662.99	8.22	1.25	142.09	53.02
	1.900	180.00	.00	.00	659.32	152.00	663.07	.00	663.23	22.28	2.13	109.67	32.21

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02-20-91 09:46:57

PAGE 23

Creek at Medicine Hat

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSL	DIFWSL	DIFWSX	DIFKWS	TOPWID	KLCH	
*	1.000	273.00	655.26	.00	.00	1.76	49.11	.00
	1.100	273.00	655.84	.00	.58	.00	69.24	10.00
	1.200	273.00	656.11	.00	.27	.00	77.84	20.00
	1.300	273.00	656.28	.00	.17	.00	81.85	20.00
	2.000	273.00	656.60	.00	.32	.00	81.39	60.00
	3.100	273.00	657.61	.00	1.01	95.93	265.00	265.00
	3.200	273.00	658.48	.00	.87	.00	133.06	290.00
	3.300	273.00	659.08	.00	.59	.00	201.74	230.00
	4.100	273.00	659.14	.00	.07	.00	300.00	160.00
	4.200	273.00	659.14	.00	.00	.00	300.00	5.00
	4.300	273.00	659.15	.00	.01	.00	300.00	6.00
	4.400	273.00	659.17	.00	.02	.00	300.00	5.00
	4.500	152.00	659.18	.00	.01	.00	35.50	120.00
	17.000	152.00	659.62	.00	.44	.00	109.09	130.00
	16.000	152.00	659.69	.00	.07	.00	160.00	30.00
	15.200	152.00	659.59	.00	-1.0	.00	109.52	1.00
	15.100	152.00	660.00	.00	.41	.00	120.00	9.00
	14.000	152.00	660.02	.00	.02	.00	120.00	1.00
	13.000	152.00	660.10	.00	.08	.00	130.00	30.00
	12.200	152.00	660.22	.00	.12	.00	145.43	140.00
	12.100	152.00	660.46	.00	.24	.00	74.17	250.00
	11.000	152.00	660.58	.00	.12	.00	20.15	115.00
	9.000	152.00	660.93	.00	.35	.00	19.50	10.00
	8.000	152.00	661.21	.00	.28	.00	36.47	25.00
	7.100	152.00	661.44	.00	.23	.00	69.44	190.00
	7.000	152.00	661.55	.00	.11	.00	75.15	200.00
	6.100	152.00	661.73	.00	.17	.00	32.68	210.00
	5.000	152.00	662.34	.00	.61	.00	57.84	140.00
	4.290	152.00	662.64	.00	.30	.00	97.46	1.00
	4.190	152.00	662.70	.00	.06	.00	95.11	6.00
	3.900	152.00	662.78	.00	.07	.00	95.42	1.00
	2.900	152.00	662.88	.00	.11	.00	119.99	20.00
	1.190	152.00	662.92	.00	.03	.00	75.71	115.00
	1.900	152.00	663.07	.00	.15	.00	83.17	180.00

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02-20-91 09:46:57

PAGE 25

SUMMARY OF ERRORS AND SPECIAL NOTES

CAUTION SECNO= 1.000 PROFILE= 1 CRITICAL DEPTH ASSUMED

1

02-20-91 09:47:48

PAGE 1



THIS RUN EXECUTED 02-20-91

\*\*\*\*\*  
REC2 RELEASE DATED NOV 76 UPDATED MAY 1984  
ERROR CORR - 01,02,03,04,05,06  
MODIFICATION - 50,51,52,53,54,55,56  
IBM-PC-XT VERSION AUGUST 1985  
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^E









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1*****
* WATER SURFACE PROFILES
* VERSION OF NOVEMBER 1976
* UPDATED MAY 1984
* IBM-PC-XT VERSION AUGUST 1985
* RUN DATE 02-04-91 TIME 15:54:02
*****

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*****
* U.S. ARMY CORPS OF ENGINEERS
* THE HYDROLOGIC ENGINEERING CENTER
* 609 SECOND STREET, SUITE D
* DAVIS, CALIFORNIA 95616
* (916) 440-2105 (FTS) 448-2105
*****

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      X  X  XXXXXXX  XXXXX  XXXXX
      X  X  X      X      X      X  X
      X  X  X      X      X      X  X
      XXXXXXX  XXXX  X      XXXXX
      X  X  X      X      X      X
      X  X  XXXXXXX  XXXXX  XXXXXXX

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1 02-04-91 15:54:02

PAGE 1

THIS RUN EXECUTED 02-04-91

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*****
HEC2 RELEASE DATED NOV 76 UPDATED MAY 1984
ERROR CORR - 01.02.03.04.05.06
MODIFICATION - 50.51.52.53.54.55.56
IBM-PC-XT VERSION AUGUST 1985
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T1 Seven Persons Creek at Medicine Hat ***** Q=273m3/s & 121 m3/s *****
T1 final revised fr January 31, 1991 *** 1:100 encroached to floodway ***
T3 Ross/7 Persons conflux at sec 4.5 ***** FINAL RUN *****

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J1	ICHECK	INQ	NIHV	IDIR	STAT	METRIC	EVINS	Q	WSL	FQ
	0.	2.	0.	0.	-1.000000	1.00	.0	273.	653.500	.000
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIN	ITRACE
	-1.000	.000	-1.000	.000	.000	.000	.000	.000	.000	15.000
J3	VARIABLE CODES FOR SUMMARY PRINTOUT									
	150.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
NC	.150	.150	.055	.100	.300	.000	.000	.000	.000	.000
X1	1.000	15.000	80.000	140.000	.000	.000	.000	.000	.000	.000
GR	659.000	.000	658.000	12.000	657.000	30.000	656.000	50.000	655.000	80.000
GR	654.000	85.000	652.750	90.000	652.750	105.000	654.000	110.000	655.000	120.000
GR	656.000	125.000	657.000	130.000	658.000	135.000	659.000	140.000	660.000	175.000
X1	1.100	.000	.000	.000	10.000	10.000	10.000	.000	.000	.000
X1	1.200	.000	.000	.000	20.000	20.000	20.000	.000	.000	.000
X1	1.300	.000	.000	.000	20.000	20.000	20.000	.000	.000	.000
X1	2.000	17.000	65.000	110.000	60.000	60.000	60.000	.000	.000	.000
GR	659.000	.000	658.000	7.500	657.000	15.000	656.000	22.000	655.000	45.000
GR	654.000	65.000	653.610	70.000	653.330	70.650	652.920	72.850	655.090	75.160
GR	653.260	79.890	653.100	84.910	653.270	85.890	653.890	87.050	654.000	90.000
GR	659.000	110.000	660.000	130.000	.000	.000	.000	.000	.000	.000
X1	3.100	12.000	70.000	125.000	225.000	200.000	265.000	.000	.000	.000
X3	.000	.000	.000	.000	.000	125.000	.000	.000	.000	.000
GR	659.000	.000	658.000	20.000	657.000	35.000	656.000	55.000	655.000	70.000
GR	654.000	80.000	653.000	80.000	653.000	95.000	654.000	95.000	655.000	100.000
GR	658.000	125.000	658.000	145.000	.000	.000	.000	.000	.000	.000

1 02-04-91 15:54:02

PAGE 2

X1	3.200	11.000	65.000	105.000	375.000	100.000	290.000	.000	.000	.000
X3	.000	.000	.000	.000	.000	200.000	.000	.000	.000	.000
GR	660.000	.000	660.000	55.000	659.000	65.000	655.000	80.000	653.500	87.500
GR	655.000	95.000	657.000	100.000	658.000	105.000	658.000	200.000	659.000	250.000
GR	660.000	400.000	.000	.000	.000	.000	.000	.000	.000	.000
NH	5.000	.040	60.000	.055	90.000	.150	210.000	.055	250.000	.150
NH	350.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
X1	3.300	15.000	210.000	250.000	230.000	200.000	230.000	.000	.000	.000
X3	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
GR	660.000	.000	659.000	60.000	658.000	65.000	655.000	70.000	654.000	75.000
GR	655.000	80.000	657.000	90.000	657.000	95.000	657.000	205.000	657.000	210.000
GR	655.000	220.000	654.000	230.000	655.000	235.000	659.000	250.000	660.000	350.000
NC	.000	.000	.000	.300	.500	.000	.000	.000	.000	.000
NH	4.000	.150	200.000	.055	223.000	.150	370.000	.055	450.000	.000
X1	4.100	28.000	370.000	413.000	130.000	150.000	160.000	.000	.000	.000
X3	.000	.000	.000	150.000	.000	450.000	.000	.000	.000	.000
GR	658.000	.000	658.000	200.000	657.900	200.000	656.400	201.000	655.700	204.000
GR	654.600	205.000	654.400	207.000	654.400	212.000	654.600	216.000	654.800	218.000
GR	655.900	220.000	657.000	222.000	657.500	222.000	658.000	223.000	658.000	370.000
GR	657.900	370.000	657.710	370.000	655.840	374.000	654.670	384.500	654.620	388.000
GR	654.390	393.000	654.630	399.000	654.670	403.500	655.900	407.500	656.690	413.000
GR	657.950	413.000	658.410	417.000	658.700	450.000	.000	.000	.000	.000
NH	4.000	.150	200.000	.055	223.000	.150	370.000	.055	450.000	.000
X1	4.200	72.000	370.000	411.000	5.000	5.000	5.000	.000	.000	.000
X3	.000	.000	.000	150.000	.000	450.000	.000	.000	.000	.000
GR	658.700	.000	658.700	200.000	657.900	200.000	656.400	201.000	655.700	204.000
GR	657.900	204.000	657.900	204.300	655.700	204.300	654.600	205.000	654.000	207.000
GR	654.200	209.000	657.900	209.000	657.900	209.300	654.200	209.300	654.400	212.000
GR	654.400	214.000	657.900	214.000	657.900	214.300	654.400	214.300	654.400	216.000
GR	654.600	218.000	654.700	218.700	657.900	218.700	657.900	219.000	654.700	219.000
GR	655.900	220.000	657.000	222.000	657.500	223.000	657.900	223.000	658.700	223.000
GR	658.700	370.000	657.900	370.000	655.750	374.500	657.900	374.500	657.900	374.800
GR	655.650	374.800	655.450	379.200	657.900	379.200	657.900	379.500	655.350	379.500



GR	655.200	383.900	657.900	383.900	657.900	384.200	655.200	384.200	654.900	388.600
GR	657.900	388.600	657.900	388.900	654.900	388.900	654.900	389.100	654.290	392.600
GR	654.290	393.300	657.900	393.300	657.900	393.600	654.290	393.600	654.250	397.300
GR	654.300	398.000	657.900	398.000	657.900	398.300	654.300	398.300	655.840	399.600
GR	655.800	402.700	657.900	402.700	657.900	403.000	655.800	403.000	655.190	407.000
GR	657.900	407.300	657.900	407.800	655.650	407.800	656.590	411.000	657.900	411.000
GR	658.700	411.000	658.700	450.000	.000	.000	.000	.000	.000	.000
NH	4.000	.150	200.000	.055	223.000	.150	370.000	.055	450.000	.000
X1	4.200	.000	.000	6.000	.000	6.000	.000	.000	.000	.000
X3	.000	.000	.000	150.000	.000	450.000	.000	.000	.000	.000

1 02-04-91 15:54:02

PAGE 3

NH	4.000	.150	200.000	.055	223.000	.150	370.000	.055	450.000	.000
X1	4.400	28.000	370.000	411.000	5.000	5.000	5.000	.000	.000	.000
X3	.000	.000	.000	150.000	.000	450.000	.000	.000	.000	.000
GR	658.000	.000	658.000	200.000	657.900	200.000	656.400	201.000	655.700	204.000
GR	654.400	205.000	654.000	207.000	654.400	212.000	654.400	216.000	654.600	218.000
GR	655.900	220.000	657.000	222.000	657.500	223.000	658.000	223.000	658.000	370.000
GR	657.900	370.000	655.660	374.800	654.840	389.100	654.290	392.600	654.250	397.300
GR	655.840	399.600	655.590	407.500	656.590	411.000	657.900	411.000	658.470	411.000
GR	658.570	413.700	658.590	427.100	658.700	450.000	.000	.000	.000	.000
NC	.200	.200	.045	.200	.400	.000	.000	.000	.000	.000
NH	5.000	.150	200.000	.055	240.000	.150	390.000	.055	430.000	.200
X1	550.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
X2	4.500	26.000	200.000	240.000	90.000	90.000	90.000	.000	.000	.000
X3	121.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
GR	659.500	.000	659.000	40.000	658.000	50.000	657.000	70.000	657.000	80.000
GR	658.000	170.000	658.000	200.000	655.000	210.000	654.000	215.000	655.000	220.000
GR	657.000	225.000	658.000	240.000	658.000	310.000	657.000	320.000	660.000	325.000
GR	660.000	390.000	658.000	395.000	658.000	400.000	657.000	405.000	655.000	410.000
GR	654.500	412.000	655.000	415.000	660.000	430.000	660.000	480.000	659.000	505.000
GR	659.500	550.000	.000	.000	.000	.000	.000	.000	.000	.000

NC	.200	.100	.045	.200	.400	.000	.000	.000	.000	.000
X1	5.000	6.000	.000	22.700	90.000	90.000	90.000	.000	.000	.000
X3	10.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
GR	659.810	.000	658.610	.100	653.700	7.300	653.700	15.300	658.610	22.610
GR	659.810	22.700	.000	.000	.000	.000	.000	.000	.000	.000

S3	1.000	1.560	1.500	22.700	8.000	.010	76.500	2.000	654.230	654.230
X1	6.000	.000	.000	.000	9.100	9.100	9.100	.000	.000	.000
X2	.000	.000	1.000	658.610	659.810	.000	.000	1.010	.000	.000
X3	10.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

X1	8.100	11.000	56.000	74.000	240.000	240.000	240.000	.000	.000	.000
X3	.000	.000	.000	20.000	.000	130.000	.000	.000	.000	.000
GR	659.800	659.000	659.000	658.000	658.000	48.000	657.000	50.000	656.000	56.000
GR	654.200	60.000	654.200	74.000	658.000	75.000	659.000	105.000	660.000	110.000
GR	661.000	155.000	.000	.000	.000	.000	.000	.000	.000	.000

X1	10.000	16.000	5.400	28.300	270.000	270.000	270.000	.000	.000	.000
X3	10.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
GR	660.580	.000	660.580	3.300	661.400	5.400	658.140	6.000	657.490	8.300
GR	656.620	8.900	656.600	11.600	655.460	13.500	655.260	14.800	654.910	17.000
GR	654.850	20.500	654.760	22.900	654.650	25.900	655.260	27.600	655.280	28.300
GR	661.400	28.300	.000	.000	.000	.000	.000	.000	.000	.000

S3	1.000	1.560	1.500	22.900	14.000	.010	85.000	1.120	655.000	655.000
X1	11.000	16.000	5.400	28.300	8.600	8.600	8.600	.000	.000	.000
X2	.000	.000	1.000	659.160	661.400	.000	.000	1.010	.000	.000
X3	10.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
GR	660.580	.000	660.580	3.300	661.400	5.400	658.140	6.000	657.490	8.300
GR	656.620	8.900	656.600	11.600	655.460	13.500	655.260	14.800	654.910	17.000

1 02-04-91 15:54:02

PAGE 4

GR	654.850	20.500	654.760	22.900	654.650	25.900	655.260	27.600	655.280	28.300
GR	661.400	28.300	.000	.000	.000	.000	.000	.000	.000	.000
NC	.000	.000	.037	.000	.000	.000	.000	.000	.000	.000
X1	12.200	25.000	41.710	62.110	33.000	33.000	33.000	.000	.000	.000
X3	10.000	.000	.000	25.000	.000	75.000	.000	.000	.000	.000
GR	660.200	.000	659.800	2.220	658.080	5.700	658.450	18.420	659.120	21.960
GR	658.660	25.370	658.490	36.290	658.600	41.710	656.170	45.950	655.890	47.630
GR	654.580	51.850	655.300	52.530	654.570	53.030	654.580	56.130	655.370	56.370
GR	655.830	67.230	656.150	69.150	659.100	62.110	657.740	65.740	659.100	77.550
GR	659.890	98.780	660.220	125.240	660.330	162.050	661.250	193.190	663.370	203.230

X1	13.000	9.000	160.000	179.210	35.000	35.000	35.000	.000	.000	.000
X3	.000	.000	.000	70.000	.000	190.000	.000	.000	.000	.000
GR	660.500	.000	659.000	659.000	659.970	659.970	657.970	160.000	655.000	166.000
GR	655.000	173.200	657.970	179.200	659.080	179.210	661.000	220.000	.000	.000

X1	13.100	.000	.000	.000	1.000	1.000	1.000	.000	.000	.000
X3	.000	.000	.000	60.000	.000	190.000	.000	.000	.000	.000
BT	-16.000	160.000	659.080	659.080	160.000	659.080	657.970	166.000	659.080	657.970
BT	.000	173.200	659.080	657.970	179.200	659.080	657.970	179.210	659.080	659.080

X1	13.200	.000	.000	.000	15.000	15.000	15.000	.000	.000	.000
X2	.000	.000	.000	.000	1.000	.000	.000	.000	.000	.000
X3	.000	.000	.000	50.000	.000	190.000	.000	.000	.000	.000

X1	14.000	.000	.000	.000	1.000	1.000	1.000	.000	.000	.000
X3	.000	.000	.000	40.000	.000	190.000	.000	.000	.000	.000

X1	15.000	19.000	640.650	659.810	30.000	30.000	30.000	.000	.000	.000
X3	.000	.000	.000	520.000	.000	.000	.000	.000	.000	.000
GR	661.010	.000	660.330	72.850	659.490	361.310	659.350	451.370	658.830	533.220
GR	658.390	573.840	658.850	637.480	658.520	640.650	657.030	643.150	656.390	644.640
GR	655.630	646.750	656.180	657.490	655.190	655.000	652.830	655.190	655.190	655.190
GR	655.950	653.880	657.530	656.710	660.500	659.810	661.150	661.640	.000	.000

X1	16.000	23.000	164.280	189.260	445.000	445.000	445.000	.000	.000	.000
X2	.000	.000	.000	10.000	.000	.000	.000	.000	.000	.000
GR	660.500	.000	660.000	50.000	660.000	100.000	660.000	105.000	660.000	150.000
GR	661.730	156.000	660.570	159.480	660.870	164.280	658.820	168.050	657.060	171.070
GR	656.390	173.920	657.110	177.150	660.150	189.260	660.790	236.570	662.540	247.020
GR	662.430	251.480	657.320	291.720	678.850	307.490	700.080	321.760	701.650	324.910
GR	704.990	331.620	706.580	339.380	709.140	344.510	.000	.000	.000	.000





X1	17.000	17.000	650.000	677.290	354.000	354.000	354.000	.000	.000	.000
X3	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
GR	662.500	.000	661.300	40.000	661.100	105.000	660.600	210.000	660.700	275.000
GR	660.400	315.000	660.700	395.000	660.200	530.000	660.600	620.000	660.600	621.000
GR	661.200	650.000	658.020	657.290	657.410	659.460	657.220	663.240	657.380	668.550
GR	664.900	677.290	696.840	710.460	.000	.000	.000	.000	.000	.000

1  
02-04-91 15:54:02

PAGE 5

NC	.040	.000	.000	.000	.000	.000	.000	.000	.000	.000
X1	18.000	23.000	535.110	555.070	415.000	415.000	415.000	.000	.000	.000
X3	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
GR	661.300	.000	661.000	150.000	661.000	400.000	661.300	500.000	661.990	535.110
GR	661.890	537.630	661.890	539.480	661.250	541.230	658.360	545.720	658.120	546.710
GR	657.580	547.490	667.410	549.250	657.630	551.420	657.840	552.650	658.120	552.850
GR	661.420	555.070	661.730	556.780	661.930	574.680	661.660	592.980	661.720	611.630
GR	662.160	621.790	662.160	632.140	667.100	637.120	.000	.000	.000	.000

X1	19.000	30.000	183.710	213.910	40.000	40.000	40.000	.700	.000	.000
X3	.000	.000	.000	146.000	.000	.000	.000	.000	.000	.000
GR	664.890	.000	663.360	8.250	661.470	19.190	661.190	28.050	661.380	49.860
GR	661.140	74.340	661.380	82.120	661.610	104.840	661.610	110.980	661.370	127.950
GR	661.530	136.610	661.730	139.930	661.620	144.370	662.000	157.910	662.220	174.750
GR	662.070	181.570	662.020	183.710	660.710	188.220	658.700	195.010	658.350	197.350
GR	658.290	199.760	658.290	202.800	658.700	206.280	659.840	209.070	661.050	211.980
GR	662.530	213.910	662.840	217.360	663.300	245.880	664.610	299.390	665.320	318.100

X1	19.100	23.000	1000.000	1017.400	3.000	3.000	3.000	.000	.000	.000
X3	10.000	.000	.000	958.000	.000	.000	.000	661.200	.000	.000
BT	-14.000	981.000	662.100	662.100	1000.000	662.420	662.420	1000.010	662.420	662.170
BT	.000	1000.100	662.420	662.170	1005.300	662.500	662.250	1008.500	662.550	662.300
BT	.000	1008.510	662.550	662.300	1008.790	662.560	662.310	1008.800	662.560	662.310
BT	.000	1012.000	662.610	662.360	1017.300	662.690	662.440	1017.380	662.690	662.440
BT	.000	1017.400	662.690	662.690	1056.000	663.000	663.000	.000	.000	.000
GR	663.400	.000	661.900	170.000	661.900	260.000	661.700	380.000	661.300	490.000
GR	661.400	595.000	661.200	700.000	661.200	800.000	662.100	980.000	662.100	981.000
GR	662.420	1000.000	662.170	1000.010	661.000	1000.100	658.380	1005.300	658.380	1008.500
GR	662.300	1008.510	662.310	1008.790	658.380	1008.800	658.380	1012.000	661.000	1017.300
GR	662.440	1017.380	662.690	1017.400	663.000	1056.000	.000	.000	.000	.000

X1	19.200	23.000	1000.000	1017.400	23.500	23.500	23.500	.000	.000	.000
X3	10.000	.000	.000	958.000	.000	.000	.000	661.200	.000	.000
BT	-14.000	981.000	662.100	662.100	1000.000	662.420	662.420	1000.010	662.420	662.170
BT	.000	1000.100	662.420	662.170	1005.300	662.500	662.250	1008.500	662.550	662.300
BT	.000	1008.510	662.550	662.300	1008.790	662.560	662.310	1008.800	662.560	662.310
BT	.000	1012.000	662.610	662.360	1017.300	662.690	662.440	1017.380	662.690	662.440
BT	.000	1017.400	662.690	662.690	1056.000	663.000	663.000	.000	.000	.000
GR	663.400	.000	661.900	170.000	661.900	260.000	661.700	380.000	661.300	490.000
GR	661.400	595.000	661.200	700.000	661.200	800.000	662.100	980.000	662.100	981.000
GR	662.420	1000.000	662.170	1000.010	661.000	1000.100	658.380	1005.300	658.380	1008.500
GR	662.300	1008.510	662.310	1008.790	658.380	1008.800	658.380	1012.000	661.000	1017.300
GR	662.440	1017.380	662.690	1017.400	663.000	1056.000	.000	.000	.000	.000

X1	20.000	32.000	178.110	209.750	3.000	3.000	3.000	.700	.000	.000
X3	.000	.000	.000	143.000	.000	.000	.000	.000	.000	.000
GR	665.480	.000	663.930	4.610	662.220	9.820	661.540	49.200	661.310	64.640
GR	661.500	102.790	661.520	109.130	661.840	123.350	661.770	138.370	662.160	150.670
GR	662.260	157.780	662.460	159.950	662.350	162.130	662.360	164.840	662.440	172.530
GR	662.370	178.110	661.710	180.270	659.300	184.630	658.940	186.430	658.420	189.240
GR	658.510	193.280	658.650	196.110	659.030	200.290	659.240	202.730	659.830	204.060
GR	661.260	207.180	662.330	209.750	662.620	211.980	662.930	215.480	663.850	251.480
GR	664.910	278.200	666.470	302.820	.000	.000	.000	.000	.000	.000

1  
02-04-91 15:54:02

PAGE 6

X1	21.000	32.000	150.620	191.790	28.500	28.500	28.500	.000	.000	.000
X3	.000	.000	.000	127.000	.000	.000	.000	.000	.000	.000
GR	665.350	.000	663.850	3.700	662.450	6.700	662.280	10.000	662.160	22.700
GR	662.180	29.700	661.330	31.640	661.560	72.650	661.590	77.460	661.590	77.460
GR	661.800	117.890	661.620	119.930	661.800	126.860	661.720	134.480	662.160	146.000
GR	662.280	150.620	662.120	153.300	661.510	159.680	660.990	164.850	660.700	167.270
GR	659.650	174.100	659.080	177.070	658.450	178.400	658.330	181.160	658.370	181.670
GR	659.080	184.770	660.160	186.560	661.160	188.380	662.770	191.790	662.980	193.400
GR	664.670	206.340	664.980	228.640	.000	.000	.000	.000	.000	.000

X1	22.000	23.000	398.590	408.860	220.000	220.000	220.000	.000	.000	.000
X3	.000	.000	.000	230.000	.000	.000	.000	.000	.000	.000
GR	698.230	.000	687.690	2.290	673.300	18.820	663.770	28.420	662.320	85.650
GR	662.240	94.010	661.180	161.460	661.440	236.380	662.380	269.820	662.380	269.820
GR	662.430	385.800	662.460	398.590	660.300	401.610	659.060	404.040	657.920	406.440
GR	659.020	408.440	659.580	408.860	662.860	448.420	664.890	451.520	665.290	464.600
GR	666.030	478.940	694.570	513.760	695.070	516.760	.000	.000	.000	.000

X1	22.100	9.000	100.000	135.000	240.000	240.000	240.000	.000	.000	.000
X3	.000	.000	.000	50.000	.000	.000	.000	.000	.000	.000
GR	663.000	.000	663.000	80.000	663.500	100.000	663.000	110.000	661.000	115.000
GR	659.800	115.000	659.800	125.000	662.000	130.000	665.000	135.000	.000	.000

X1	22.200	9.000	260.000	275.000	10.000	10.000	10.000	.000	.000	.000
X3	.000	.000	.000	200.000	.000	.000	.000	.000	.000	.000
BT	4.000	200.000	663.000	663.000	260.000	664.500	663.750	275.000	664.500	663.750
BT	285.000	663.750	663.750	.000	.000	.000	.000	.000	.000	.000
GR	665.000	.000	663.000	.000	663.000	290.000	663.750	260.000	661.000	260.000
GR	659.800	275.000	663.750	275.000	663.750	285.000	665.000	290.000	.000	.000

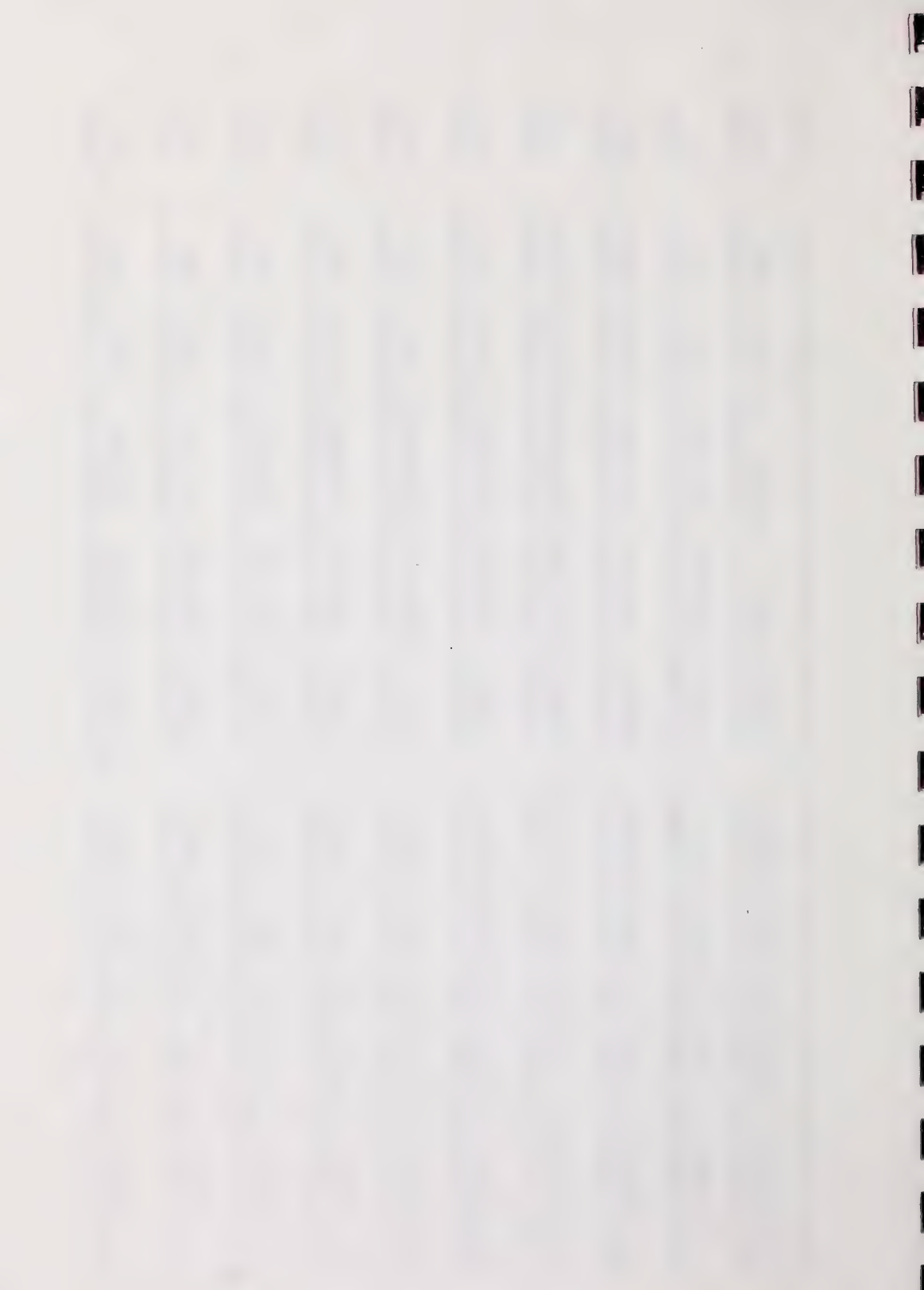
X1	22.300	.000	.000	.000	4.400	4.400	4.400	.000	.000	.000
X2	.000	.000	.000	.000	.000	.000	1.000	.000	.000	.000
X3	.000	.000	.000	200.000	.000	.000	.000	.000	.000	.000

X1	22.400	25.000	269.820	297.860	10.000	10.000	10.000	.000	.000	.000
X3	.000	.000	.000	220.000	.000	.000	.000	.000	.000	.000
GR	667.550	.000	664.020	3.110	660.130	12.710	662.850	77.820	662.860	139.030
GR	663.360	241.540	663.530	258.020	663.610	256.430	663.370	269.460	662.950	269.820
GR	660.820	276.120	659.970	280.280	660.830	283.280	661.130	292.840	661.980	297.860
GR	661.360	302.230	662.920	320.650	663.440	351.500	663.790	362.830	663.790	364.790
GR	663.800	367.820	663.800	370.790	665.590	377.810	696.230	430.270	696.430	432.870

NC	.040	.040	.000	.000	.000	.000	.000	.000	.000	.000
X1	23.000	.000	.000	.000	50.000	.000	50.000	.000	.000	.000
X3	.000	.000	.000	240.000	.000	320.000	.000	.000	.000	.000

X1	23.100	8.000	30.000	65.000	130.000	130.000	130.000	.000	.000	.000
X3	.000	.000	.000	.100	.000	100.000	.000	.000	.000	.000





GR	664.000	.000	663.500	30.000	660.800	43.000	660.800	48.000	661.500	50.000
GR	661.500	57.000	663.500	65.000	664.000	100.000	.000	.000	.000	.000
1	02-04-91	15:54:02							PAGE	7
X1	23.200	29.000	165.000	185.200	20.000	20.000	20.000	.000	.000	.000
X3	.000	.000	.000	120.000	.000	240.000	.000	.000	.000	.000
GR	680.000	.000	675.000	45.000	670.000	100.000	664.100	120.000	664.200	165.000
GR	662.570	165.100	662.530	166.000	662.140	167.000	661.930	168.000	661.810	169.000
GR	661.760	170.000	661.590	171.000	661.010	172.000	660.940	173.000	660.890	174.500
GR	663.570	174.500	663.570	175.500	660.930	175.500	660.760	177.000	660.750	178.000
GR	660.850	179.000	661.150	180.000	661.540	182.000	661.510	184.000	661.740	185.200
GR	664.350	185.200	664.000	240.000	665.000	370.000	670.000	395.000	.000	.000

SB	1.050	1.560	1.450	.000	13.000	1.000	46.500	1.750	661.000	661.000
X1	23.300	.000	.000	.000	7.600	7.600	7.600	.000	.000	.000
X2	.000	.000	1.000	663.570	664.200	.000	.000	1.200	.000	.000
X3	.000	.000	.000	120.000	.000	240.000	.000	.000	.000	.000
BT	-15.000	165.000	664.200	664.200	165.100	664.200	663.570	166.000	664.200	663.570
BT	.000	167.000	664.200	663.570	168.000	664.200	663.570	169.000	664.200	663.570
BT	.000	174.500	664.200	663.570	175.500	664.200	663.570	177.000	664.200	663.570
BT	.000	178.000	664.200	663.570	179.000	664.200	663.570	180.000	664.200	663.570
BT	.000	182.000	664.200	663.570	184.000	664.200	663.570	185.200	664.200	663.570

X1	23.400	8.000	30.000	65.000	20.000	20.000	20.000	.000	.000	.000
X3	.000	.000	.000	.000	.000	100.000	.000	.000	.000	.000
GR	664.000	.000	663.500	30.000	660.800	43.000	660.800	48.000	661.500	50.000
GR	661.500	57.000	663.500	65.000	664.000	100.000	.000	.000	.000	.000

X1	24.000	18.000	263.670	290.510	180.000	180.000	180.000	.000	.000	.000
X3	.000	.000	.000	220.000	.000	.000	.000	.000	.000	.000
GR	668.800	.000	665.990	10.990	664.790	31.000	664.690	60.960	664.890	91.000
GR	664.490	121.010	664.390	172.890	664.400	220.380	664.450	225.900	664.500	238.020
GR	664.720	263.670	661.620	269.490	660.720	275.000	661.380	277.240	661.050	279.510
GR	661.680	281.850	664.340	286.270	667.340	290.510	.000	.000	.000	.000

NC	.000	.000	.012	.000	.000	.000	.000	.000	.000	.000
X1	24.100	30.000	275.000	289.400	10.000	10.000	10.000	.000	.000	.000
X3	.000	.000	.000	230.000	.000	.000	.000	.000	.000	.000
GR	670.000	.000	665.000	20.000	664.300	140.000	664.900	240.000	665.000	270.000
GR	663.600	275.000	662.500	275.100	662.100	276.000	661.700	276.500	661.500	276.000
GR	661.400	276.800	661.330	277.000	661.400	277.800	661.600	278.500	661.500	278.400
GR	662.250	279.000	663.600	279.400	663.400	285.000	662.200	285.400	661.700	285.800
GR	661.430	286.200	661.300	286.600	661.200	287.200	661.300	287.800	661.430	288.200
GR	661.700	288.600	662.100	289.000	663.400	289.400	668.600	310.000	670.000	400.000

NC	.000	.000	.012	.000	.000	.000	.000	.000	.000	.000
X1	24.200	.000	.000	.000	6.000	6.000	.000	.000	.000	.000
X3	.000	.000	.000	230.000	.000	.000	.000	.000	.000	.000
GR	670.000	.000	670.000	20.000	665.000	665.000	140.000	664.300	664.300	664.300
BT	240.000	664.900	664.900	275.000	666.400	666.400	275.000	666.400	666.400	275.000
BT	666.490	664.700	275.600	666.490	665.100	276.000	666.490	665.400	276.400	666.490
BT	665.630	276.800	666.490	665.710	277.000	666.490	665.780	277.800	666.490	665.700
BT	278.200	666.490	665.550	278.600	666.490	665.250	279.000	666.490	664.900	279.400
BT	666.490	663.600	285.000	666.950	663.400	285.400	666.950	664.700	285.800	666.950
BT	665.150	286.200	666.490	286.600	666.500	287.200	666.500	287.200	666.500	287.200
BT	287.800	666.950	665.580	288.200	666.950	665.400	288.600	666.950	665.150	289.000
BT	666.950	664.700	289.400	666.950	663.400	310.000	668.600	310.000	670.000	670.000

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BT	670.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
X1	24.300	.000	.000	.000	28.000	28.000	28.000	.000	.000	.000
X2	.000	.000	.000	.000	.000	.000	1.000	.000	.000	.000
X3	.000	.000	.000	230.000	.000	.000	.000	.000	.000	.000

X1	24.400	.000	.000	.000	6.000	6.000	6.000	.000	.000	.000
X3	.000	.000	.000	230.000	.000	.000	.000	.000	.000	.000
X5	1.000	666.000	.000	.000	.000	.000	.000	.000	.000	.000

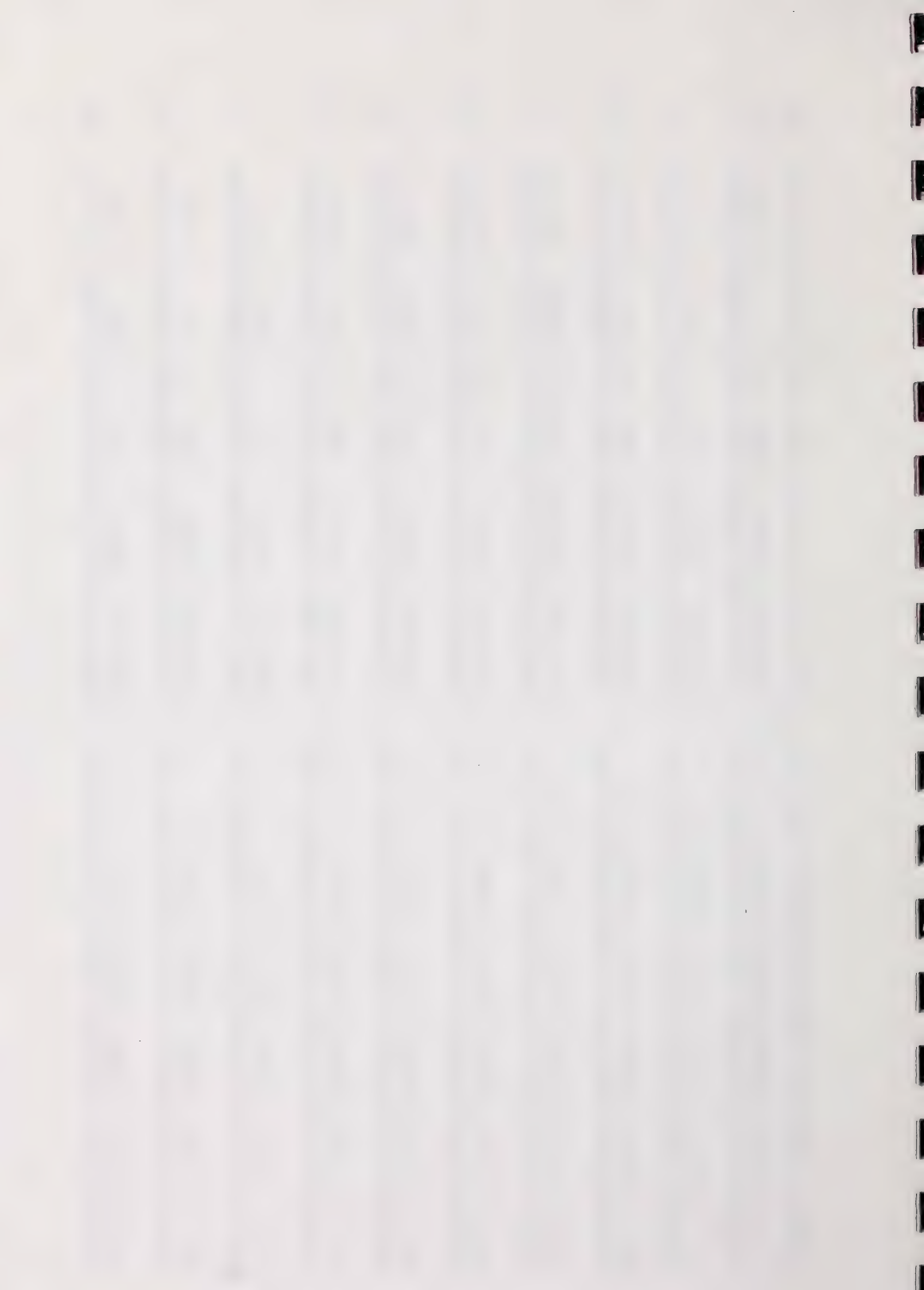
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X1	27.000	21.000	286.110	313.120	10.000	10.000	10.000	.000	.000	.000
X3	10.000	.000	.000	270.000	.000	.000	.000	.000	.000	.000
GR	667.870	.000	664.840	34.870	665.350	90.020	664.900	118.670	665.020	189.360
GR	665.810	224.410	665.880	236.860	665.500	246.210	665.060	247.470	664.990	259.050
GR	665.090	275.990	665.010	286.110	663.860	288.380	662.840	291.700	662.050	293.110
GR	661.760	297.900	662.100	303.290	662.180	303.410	662.830	307.070	665.980	313.120
GR	667.610	315.830	.000	.000	.000	.000	.000	.000	.000	.000

NC	.050	.050	.000	.000	.000	.000	.000	.000	.000	.000
X1	28.000	20.000	172.620	197.310	365.000	365.000	365.000	.000	.000	.000
X3	10.000	.000	.000	120.000	.000	.000	.000	.000	.000	.000
GR	679.730	.000	679.990	2.910	668.970	23.060	667.700	34.150	666.840	72.880
GR	667.060	128.170	663.640	165.330	665.380	172.620	663.370	181.700	663.180	188.170
GR	663.110	188.220	662.760	191.220	663.110	194.720	663.910	197.310	665.960	226.000
GR	666.600	252.910	666.920	266.370	672.870	286.560	684.650	340.880	697.400	369.990

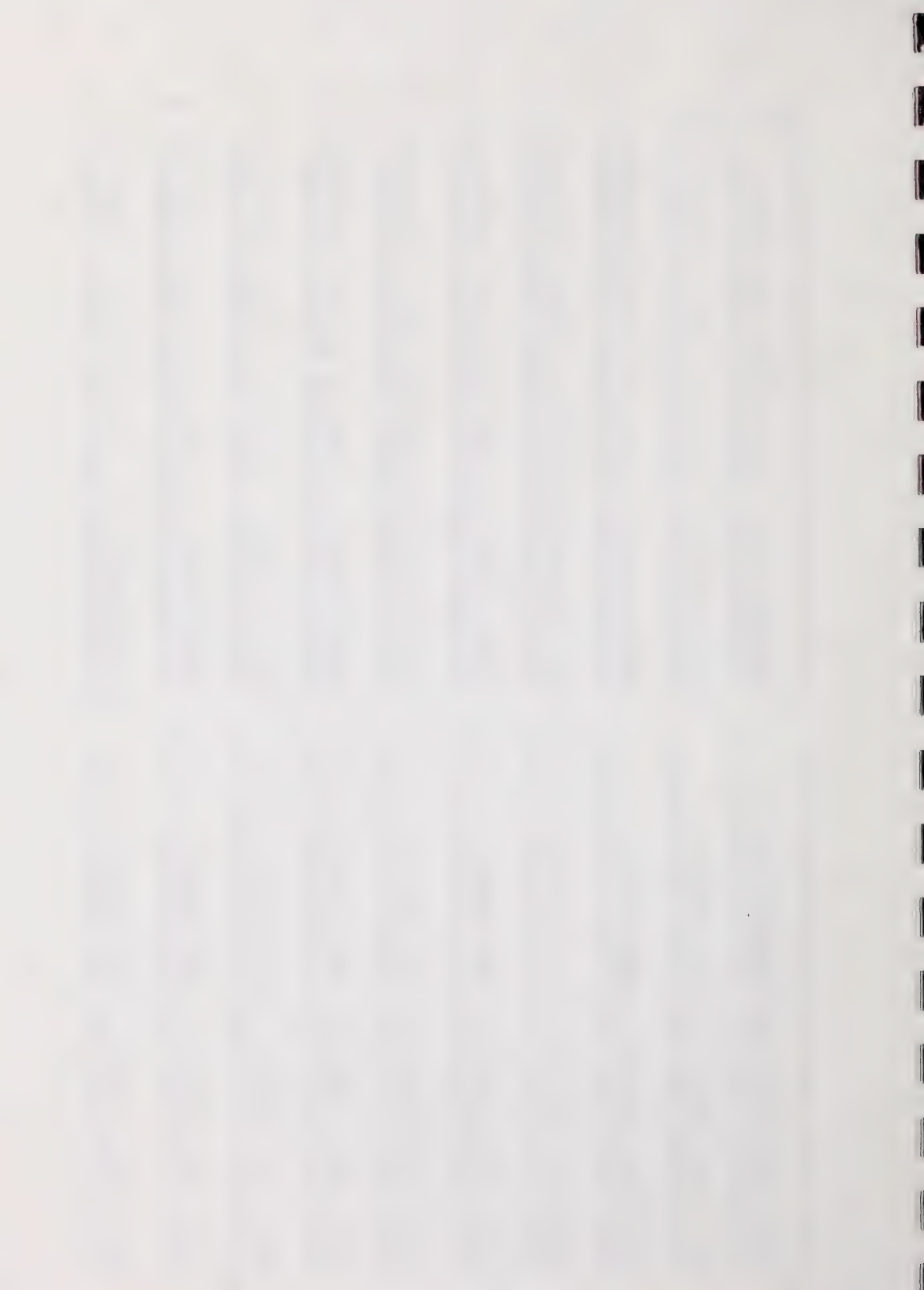
X1	29.000	33.000	187.570	224.920	311.000	311.000	311.000	.000	.000	.000
X3	10.000	.000	.000	130.000	.000	.000	.000	.000	.000	.000
GR	696.010	.000	691.000	16.080	676.120	28.990	670.260	36.940	667.430	42.360
GR	667.540	57.210	667.680	84.180	667.380	103.590	667.390	127.550	666.620	141.150
GR	665.960	151.310	665.990	173.760	666.560	187.500	666.480	187.570	664.940	191.350
GR	664.260	199.770	664.130	200.300	663.670	202.030	664.900	205.530	665.340	205.530
GR	665.600	207.920	664.500	213.500	664.570	218.770	667.560	224.920	668.160	239.460
GR	668.140	275.700	666.920	293.590	668.350	306.120	670.070	323.720	675.610	352.750
GR	684.650	404.700	696.840	438.880	699.850	445.730	.000	.000	.000	.000

X1	29.100	22.000	175.000	210.000	45.000	45.000	45.000	.000	.000	.000
X3	10.000	.000	.000	130.000	.000	.000	.000	.000	.000	.000
GR	696.010	.000	691.000	16.080	676.120	28.990	670.260	36.940	667.430	42.360
GR	667.540	57.210	667.680	84.180	667.380	103.590	667.390	127.550	666.620	141.150
GR	666.500	143.000	666.500	150.000	666.500	175.000	665.800	179.000	665.800	184.000
GR	664.600	186.000	664.200	190.000	664.700	198.000	665.000	200.000	666.000	210.000
GR	667.000	215.000	668.000	225.000	.000	.000	.000	.000	.000	.000

SB	1.000	1.000	1.600	.000	.200	.100	.100	.000	664.500	664.500
X1	29.200	26.000	181.500	190.500	5.000	5.000	5.000	.000	.000	.000
X2	.000	.000	1.000	665.700	665.700	.000	.000	.000	.000	.000
X3	10.000	.000	.000	125.000	.000	.000	.000	.000	.000	.000
BT	-26.000	.000	696.010	696.010	16.080	691.000	691.000	28.990	676.120	676.120
BT	.000	36.940	670.260	670.260	42.360	667.430	667.430	57.210	667.540	667.540
BT	.000	84.180	667.680	667.680	103.590	667.380	667.380	127.550	667.390	667.390
BT	.000	130.000	666.820	666.820	135.000	666.580	666.580	142.000	666.370	666.370



BT	.000	149.000	666.240	666.240	151.000	665.750	665.750	155.000	665.770	665.770
1	02-04-91	15:54:02							PAGE	9
BT	.000	160.000	665.730	665.730	168.000	666.380	666.380	175.000	666.580	666.580
BT	.000	179.000	666.580	666.580	181.500	666.580	666.580	181.500	665.700	665.700
BT	.000	190.500	665.700	665.700	190.500	666.580	666.580	197.500	666.790	666.790
BT	.000	207.500	667.410	667.410	210.000	667.900	667.900	.000	667.000	667.000
GR	696.010	.000	691.000	16.000	676.120	28.990	670.260	36.940	667.430	42.360
GR	667.540	57.210	667.680	84.180	667.380	103.590	667.390	127.550	666.820	130.000
GR	666.580	135.000	666.370	142.000	666.240	149.000	665.750	151.000	665.700	155.000
GR	665.730	160.000	666.380	168.000	666.580	175.000	666.580	179.000	666.580	181.500
GR	665.700	181.500	666.580	190.500	666.580	190.500	666.790	197.500	667.410	207.500
GR	667.900	210.000	.000	.000	.000	.000	.000	.000	.000	.000
NC	.050	.050	.038	.000	.000	.000	.000	.000	.000	.000
X1	29.300	18.000	178.000	197.000	10.000	10.000	10.000	.000	.000	.000
X3	10.000	.000	.000	125.000	.000	.000	.000	.000	.000	.000
GR	696.010	.000	691.000	16.000	676.120	28.990	670.260	36.940	667.430	42.360
GR	667.540	57.210	667.680	84.180	667.380	103.590	667.390	127.550	667.000	130.000
GR	666.580	178.000	666.000	180.000	664.500	182.000	664.500	192.000	666.000	195.000
GR	666.500	197.000	667.000	210.000	668.000	220.000	.000	.000	.000	.000
X1	29.400	6.000	.000	50.000	240.000	240.000	240.000	.000	.000	.000
GR	669.000	.000	668.000	5.000	667.000	25.000	666.000	30.000	666.000	35.000
GR	669.000	50.000	.000	.000	.000	.000	.000	.000	.000	.000
X1	29.500	10.000	.000	100.000	40.000	40.000	.000	.000	.000	.000
GR	670.000	.000	669.000	20.000	668.000	55.000	667.000	60.000	666.200	63.000
GR	666.200	67.000	667.000	70.000	668.000	80.000	669.000	100.000	669.000	150.000
X1	29.600	10.000	.000	80.000	50.000	50.000	50.000	.000	.000	.000
GR	668.000	.000	667.000	5.000	666.500	10.000	666.500	25.000	670.000	25.000
GR	670.000	55.000	666.500	55.000	666.500	70.000	667.000	75.000	668.000	80.000
X1	30.000	8.000	.000	62.100	10.000	10.000	10.000	.000	.000	.000
X3	10.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
GR	682.000	.000	666.690	.100	666.690	5.700	682.000	5.710	682.620	54.500
GR	666.700	54.500	666.700	62.100	680.620	62.100	.000	.000	.000	.000
NC	.012	.012	.012	.300	.500	.000	.000	.000	.000	.000
X1	30.100	27.000	.000	62.100	3.000	3.000	3.000	.000	.000	.000
X3	10.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
BT	27.000	.000	682.000	666.700	.600	682.000	668.300	1.000	682.000	669.000
BT	1.400	682.000	669.500	1.800	682.000	669.800	2.200	682.000	670.000	2.800
BT	682.000	670.100	3.200	682.000	3.600	682.000	669.900	4.000	682.000	4.000
BT	669.600	4.400	682.000	669.200	4.800	682.000	668.600	5.200	682.000	667.400
BT	5.600	682.000	666.700	54.500	680.620	666.700	55.100	680.600	668.400	55.500
BT	680.600	669.200	56.100	680.600	669.900	56.700	680.600	670.400	57.500	680.600
BT	670.850	58.300	680.600	670.800	58.900	680.600	670.700	59.500	680.600	670.400
BT	60.100	680.600	670.000	60.700	680.600	669.400	61.300	680.600	668.400	62.100
BT	680.600	666.700	.000	.000	.000	.000	.000	.000	.000	.000
GR	666.700	.000	666.700	.600	666.700	1.000	666.700	1.400	666.700	1.800
GR	666.700	2.200	666.700	2.800	666.700	3.200	666.700	3.600	666.700	4.000
GR	666.700	4.400	666.700	4.800	666.700	5.200	666.700	5.600	666.700	54.500
GR	666.700	55.100	666.700	55.500	666.700	56.100	666.700	56.700	666.700	57.500
GR	666.700	58.300	666.700	58.900	666.700	59.500	666.700	60.100	666.700	60.700
GR	666.700	61.300	666.700	62.100	.000	.000	.000	.000	.000	.000
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X1	30.110	.000	.000	.000	20.000	20.000	20.000	.000	.000	.000
X2	.000	.000	.000	.000	.000	.000	1.000	.050	.000	.000
X1	30.120	.000	.000	.000	20.000	20.000	20.000	.000	.000	.000
X2	.000	.000	.000	.000	.000	.000	1.000	.050	.000	.000
X1	30.130	.000	.000	.000	20.000	20.000	20.000	.000	.000	.000
X2	.000	.000	.000	.000	.000	.000	1.000	.050	.000	.000
X1	30.200	27.000	.000	62.100	10.000	10.000	10.000	.000	.000	.000
X3	10.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
BT	27.000	.000	682.000	666.900	.600	682.000	668.500	1.000	682.000	669.200
BT	1.400	682.000	669.700	1.800	682.000	670.000	2.200	682.000	670.200	2.800
BT	682.000	670.100	3.200	682.000	3.600	682.000	669.900	4.000	682.000	667.400
BT	669.800	4.400	682.000	669.400	4.800	682.000	668.800	5.200	682.000	668.600
BT	5.600	682.000	666.900	54.500	680.620	666.900	55.100	680.600	668.600	55.500
BT	680.600	669.400	56.100	680.600	670.100	56.700	680.600	670.100	57.500	680.600
BT	671.050	58.300	680.600	671.000	58.900	680.600	670.300	59.500	680.600	670.400
BT	60.100	680.600	670.200	60.700	680.600	669.400	61.300	680.600	668.400	62.100
BT	680.600	666.900	.000	.000	.000	.000	.000	.000	.000	.000
GR	666.900	.000	666.900	.600	666.900	1.000	666.900	1.400	666.900	1.800
GR	666.900	2.200	666.900	2.800	666.900	3.200	666.900	3.600	666.900	4.000
GR	666.900	4.400	666.900	4.800	666.900	5.200	666.900	5.600	666.900	54.500
GR	666.900	55.100	666.900	55.500	666.900	56.100	666.900	56.700	666.900	57.500
GR	666.900	58.300	666.900	58.900	666.900	59.500	666.900	60.100	666.900	60.700
GR	666.900	61.300	666.900	62.100	.000	.000	.000	.000	.000	.000
NC	.040	.040	.037	.000	.000	.000	.000	.000	.000	.000
X1	33.000	8.000	.000	62.100	3.000	3.000	3.000	.000	.000	.000
GR	682.000	.000	666.900	.000	666.900	5.600	682.000	5.600	680.620	54.500
GR	666.900	54.500	666.900	62.100	680.620	62.100	.000	.000	.000	.000
X1	34.000	18.000	67.700	79.260	490.000	490.000	490.000	.000	.000	.000
X3	.000	.000	.000	38.000	.000	109.000	.000	.000	.000	.000
GR	684.650	.000	670.930	17.110	670.700	24.000	670.700	44.950	668.970	67.700
GR	668.620	69.320	667.710	72.080	668.610	75.050	669.090	75.890	670.000	79.260
GR	670.520	106.150	671.490	130.220	671.300	168.150	670.470	190.190	669.860	201.250
GR	675.220	229.310	698.850	275.580	701.270	288.310	.000	.000	.000	.000
X1	35.000	22.000	79.760	99.320	399.750	399.750	399.750	.800	.000	.000
X3	.000	.000	.000	.000	.000	130.000	.000	.000	.000	.000
GR	709.750	.000	707.410	10.870	690.030	38.790	679.020	57.230	670.800	65.330
GR	669.790	73.420	679.370	79.760	669.160	80.650	661.180	84.980	669.500	89.730
GR	669.440	90.490	669.940	96.030	670.680	99.320	671.590	138.550	672.080	171.160
GR	673.240	244.390	673.790	319.720	674.380	370.080	677.810	404.400	680.290	444.610
GR	700.570	480.100	703.370	493.250	.000	.000	.000	.000	.000	.000
X1	36.000	24.000	298.870	331.270	404.500	404.500	404.500	.000	.000	.000
X3	.000	.000	.000	270.000	.000	.000	.000	.000	.000	.000
GR	712.610	.000	709.450	7.390	701.040	23.040	690.210	38.300	688.130	48.400
GR	682.540	88.830	679.640	97.370	672.120	112.560	670.100	170.190	672.370	243.430
GR	672.350	288.620	672.000	298.870	670.780	311.600	670.450	312.960	670.060	318.070
GR	670.520	322.800	675.700	331.270	675.620	336.230	677.780	339.950	681.120	362.340



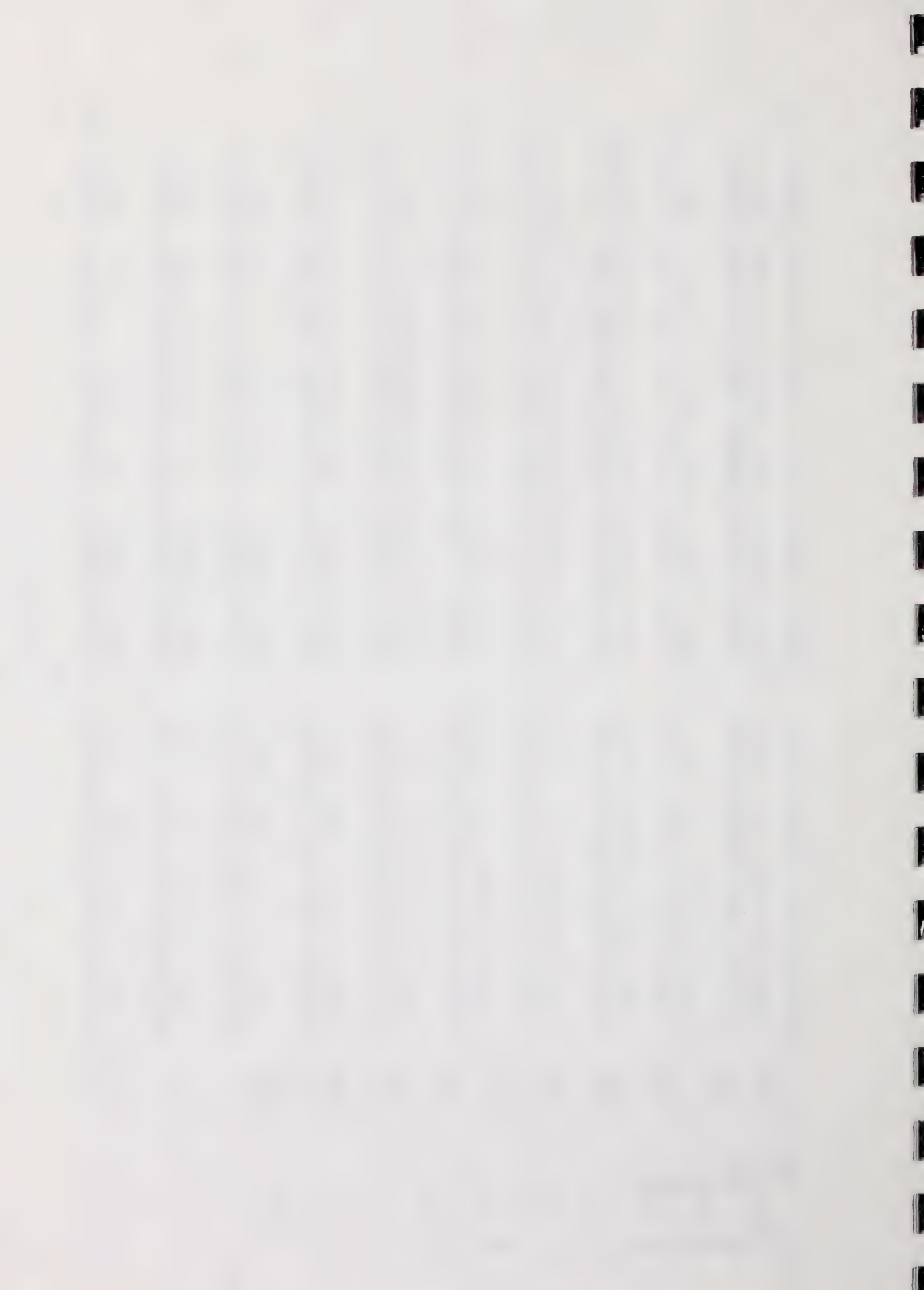


GR	686.240	400.960	686.290	412.560	700.410	444.560	703.370	457.100	.000	.000
X1	37.000	24.000	175.190	198.600	477.500	477.500	477.500	.000	.000	.000
X3	.000	.000	.000	150.000	.000	.000	.000	.000	.000	.000
GR	706.170	.000	705.340	3.140	680.530	39.540	678.530	49.570	675.170	105.590
GR	674.610	140.970	673.480	157.770	166.110	672.010	672.330	175.190	671.580	183.220
GR	671.330	183.560	670.900	186.560	671.410	189.510	671.820	189.820	672.200	194.870
GR	674.030	198.600	674.760	202.360	674.680	208.040	676.010	209.940	676.300	211.240
GR	676.930	214.070	684.330	222.850	695.400	253.370	697.360	263.920	.000	.000
X1	38.000	17.000	221.410	276.860	282.500	282.500	282.500	.750	.000	.000
X3	.000	.000	.000	213.000	.000	.000	.000	.000	.000	.000
GR	677.340	.000	677.210	79.740	675.820	96.950	675.030	173.710	674.130	221.410
GR	673.740	227.390	672.600	230.260	672.380	240.940	674.050	242.310	673.570	245.890
GR	674.040	253.470	673.030	260.530	684.950	276.860	690.280	305.470	705.150	340.350
GR	709.580	363.530	711.030	378.190	.000	.000	.000	.000	.000	.000
X1	39.000	10.000	58.030	79.500	650.000	650.000	650.000	.000	.000	.000
X3	.000	.000	.000	20.000	.000	100.000	.000	.000	.000	.000
GR	677.340	.000	677.450	52.610	676.320	58.030	674.310	62.120	673.780	69.120
GR	674.310	73.860	675.970	79.500	678.470	100.360	679.630	163.440	680.010	171.200
X1	41.000	18.000	169.100	182.640	1010.000	1010.000	1010.000	.000	.000	.000
X3	.000	.000	.000	152.000	.000	210.000	.000	.000	.000	.000
GR	711.510	.000	704.130	13.310	679.630	79.820	677.800	99.820	678.050	149.780
GR	676.630	169.100	676.350	170.030	676.000	177.450	676.360	182.330	676.610	182.640
GR	678.170	201.560	679.560	207.330	679.760	272.230	683.470	315.160	689.460	335.890
GR	696.920	411.740	712.570	459.110	713.700	467.190	.000	.000	.000	.000
X1	42.000	22.000	296.980	306.910	239.750	239.750	239.750	.800	.000	.000
X3	.000	.000	.000	275.000	.000	331.000	.000	.000	.000	.000
GR	711.270	.000	705.360	14.220	681.490	49.260	679.520	89.590	679.400	146.290
GR	680.650	238.190	678.600	253.040	677.230	296.980	676.790	297.280	676.670	301.740
GR	676.740	304.420	677.180	306.910	677.070	316.030	679.560	340.380	680.480	388.410
GR	683.010	415.910	680.220	439.030	680.640	461.530	689.060	486.570	700.890	519.860
GR	706.320	533.290	707.800	539.540	.000	.000	.000	.000	.000	.000
X1	43.000	29.000	161.170	175.690	1062.750	1062.750	1062.750	.700	.000	.000
X3	.000	.000	.000	150.000	.000	190.000	.000	.000	.000	.000
GR	707.920	.000	686.270	72.870	684.270	117.590	684.100	146.050	681.340	155.140
GR	680.650	157.130	680.310	161.170	679.670	164.300	679.340	165.820	679.230	169.010
GR	678.950	171.410	679.020	173.470	678.850	174.850	679.580	175.690	679.590	181.720
GR	679.740	181.930	680.940	183.270	681.970	185.180	682.440	186.600	682.290	201.210
GR	682.450	230.420	682.810	254.730	684.600	284.140	685.630	313.860	688.370	341.030
GR	696.170	377.580	706.240	394.640	712.870	407.590	713.980	421.730	.000	.000
X1	44.000	20.000	131.570	146.610	124.500	124.500	124.500	.000	.000	.000
X3	.000	.000	.000	110.000	.000	160.000	.000	.000	.000	.000
GR	711.500	.000	709.440	11.100	706.830	19.650	695.740	56.550	691.760	77.470
GR	688.560	100.210	687.090	107.850	680.130	123.260	679.880	131.570	679.500	131.790
GR	678.900	134.220	679.490	137.310	679.590	139.110	683.620	146.610	684.530	225.660
GR	685.370	273.100	687.240	287.680	691.960	308.370	705.470	338.630	707.950	350.480

X1	45.000	19.000	42.500	52.570	237.000	237.000	237.000	.000	.000	.000
X3	.000	.000	.000	.000	.000	70.000	.000	.000	.000	.000
GR	710.000	.000	700.000	12.000	685.000	30.000	681.110	40.000	680.750	42.500
GR	680.280	42.950	679.740	44.850	680.320	49.320	680.870	52.570	682.330	66.900
GR	683.270	106.740	684.250	115.900	684.670	157.700	685.000	210.000	686.000	241.000
GR	686.000	260.000	687.000	270.000	690.000	355.000	700.000	365.000	.000	.000
X1	47.000	15.000	61.800	69.910	870.500	870.500	870.500	.000	.000	.000
X3	.000	.000	.000	.000	.000	95.000	.000	.000	.000	.000
GR	708.850	.000	697.790	52.110	684.410	61.800	682.480	63.820	681.700	66.580
GR	682.400	68.660	682.930	69.910	683.370	82.290	684.830	105.460	685.350	154.150
GR	686.360	187.780	695.850	250.510	709.240	293.750	711.730	302.810	718.440	309.230
X1	47.100	8.000	125.000	160.000	1150.000	1150.000	1150.000	.000	.000	.000
X3	.000	.000	.000	110.000	.000	.000	.000	.000	.000	.000
GR	688.000	.000	687.000	100.000	687.000	120.000	686.000	125.000	683.500	140.000
GR	683.500	145.000	686.000	150.000	690.000	160.000	.000	.000	.000	.000
X1	48.000	12.000	311.730	329.180	1100.000	1100.000	1100.000	.000	.000	.000
X3	.000	.000	.000	270.000	.000	.000	.000	.000	.000	.000
GR	693.580	.000	688.500	28.420	688.800	123.240	688.540	203.450	688.410	265.630
GR	687.300	294.500	686.430	311.730	686.110	311.880	685.700	314.990	686.160	317.290
GR	705.150	329.180	709.920	367.210	.000	.000	.000	.000	.000	.000
X1	49.000	24.000	28.360	76.320	919.000	919.000	919.000	.000	.000	.000
X3	.000	.000	.000	28.360	.000	76.320	.000	.000	.000	.000
GR	693.330	.000	693.080	3.600	691.510	18.090	691.580	20.490	690.980	28.360
GR	688.410	35.760	688.340	49.440	688.050	56.850	688.260	63.860	688.760	70.950
GR	689.720	76.320	690.340	118.030	690.950	187.100	691.660	217.390	691.280	217.770
GR	691.780	219.110	691.420	232.150	690.350	262.240	691.350	268.450	691.450	326.920
GR	691.730	339.870	693.080	356.430	694.820	374.380	698.120	389.210	.000	.000
EJ	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

SECCNO	DEPTH	CWSL	CRIMS	WSELK	EG	HV	HL	OLOSS	BANK	ELEV
Q	GLOB	QCH	QROB	ALOB	ACH	ACOB	VOL	TWA	LEFT/RIGHT	STA
TIME	VLOB	VLOB	VROB	VRIB	WYN	ICOMT	ELWIN	TOPWID	ENDST	
SLOPE	KLOB	KLCH	KLOBR	IRIAL	IDC		CORAR			
*PROF 1										
CCHV=	.100	CEBV=	.300							
*SECCNO 1.000										
3720 CRITICAL DEPTH ASSUMED										
1.00	2.51	655.26	655.26	653.50	656.08	.82	.00	.00	655.00	
273.	0.	273.	0.	1.	68.	0.	0.	0.	659.00	
.00	.27	4.01	.00	.150	.055	.150	.000	652.75	72.19	
.025316	0.	0.	0.	0	19	0	.000	49.11	121.30	
0 FLOW DISTRIBUTION FOR SECCNO=										
STA=	72.	80.	140.							





PER Q= .1 99.9  
 AREA= 1.0 68.1  
 VEL= .3 4.0

\*SECNO 1.100  
 1.10 3.09 655.84 .00 .00 656.26 .42 .15 .04 655.00  
 273. 4. 269. 0. 10. 93. 0. 1. 1. 659.00  
 .00 .37 2.90 .00 .150 .055 .150 .000 652.75 54.93  
 .009660 10. 10. 10. 3 0 0 0 69.24 124.18

0 FLOW DISTRIBUTION FOR SECNO= 1.10 CWSSEL= 655.84

STA= 55. 80. 140.  
 PER Q= 1.4 99.6  
 AREA= 10.5 92.7  
 VEL= .4 2.9

\*SECNO 1.200  
 1.20 3.36 656.11 .00 .00 656.43 .32 .16 .01 655.00  
 273. 7. 266. 0. 19. 105. 0. 3. 2. 659.00  
 .00 .38 2.53 .00 .130 .055 .150 .000 652.75 47.73  
 .006449 20. 20. 20. 2 0 0 0 77.84 125.57

0 FLOW DISTRIBUTION FOR SECNO= 1.20 CWSSEL= 656.11

STA= 48. 80. 140.  
 PER Q= 2.6 97.4  
 AREA= 18.5 105.1  
 VEL= .4 2.5

1 02-04-91 15:54:02

PAGE 14

SECNO	DEPTH	CWSSEL	CRIMS	WSELK	EG	HV	HL	OLOSS	BANK	ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT	
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA	
SLOPE	KLOBL	KLCH	KLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST	

\*SECNO 1.300  
 1.30 3.53 656.28 .00 .00 656.55 .27 .12 .00 655.00  
 273. 9. 264. 0. 24. 113. 0. 6. 4. 659.00  
 .01 .40 2.34 .00 .150 .055 .150 .000 652.75 44.52  
 .005173 20. 20. 20. 0 0 0 0 81.85 126.37

0 FLOW DISTRIBUTION FOR SECNO= 1.30 CWSSEL= 656.28

STA= 45. 50. 80. 140.  
 PER Q= .0 3.4 96.5  
 AREA= .8 23.2 112.5  
 VEL= .1 .4 2.3

\*SECNO 2.000  
 2.00 3.68 656.60 .00 .00 656.86 .26 .31 .00 654.00  
 273. 44. 229. 0. 66. 94. 0. 15. 9. 659.00  
 .01 .67 2.45 .00 .150 .055 .150 .000 652.92 19.01  
 .005076 60. 60. 60. 2 0 0 0 81.39 100.40

0 FLOW DISTRIBUTION FOR SECNO= 2.00 CWSSEL= 656.60

STA= 19. 25. 45. 65. 110.  
 PER Q= .1 4.1 12.0 83.8  
 AREA= 1.8 22.0 42.0 93.5  
 VEL= .2 .5 .8 2.4

\*SECNO 3.100

3470 ENCROACHMENT STATIONS= .0 125.0 TYPE= 1 TARGET= 124.999  
 3.10 4.61 657.61 .00 .00 657.75 .14 .88 .01 655.00  
 273. 25. 248. 0. 57. 144. 0. 60. 30. 100000.00  
 .06 45 1.72 .00 .150 .055 .150 .000 653.00 55.83  
 .002411 225. 265. 200. 2 0 0 0 95.93 121.76

0 FLOW DISTRIBUTION FOR SECNO= 3.10 CWSSEL= 657.61

STA= 26. 35. 55. 70. 125.  
 PER Q= .2 2.9 6.2 90.8  
 AREA= 2.8 22.2 31.7 144.2  
 VEL= .1 .4 .5 1.7

1 02-04-91 15:54:02

PAGE 15

SECNO	DEPTH	CWSSEL	CRIMS	WSELK	EG	HV	HL	OLOSS	BANK	ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT	
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA	
SLOPE	KLOBL	KLCH	KLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST	

\*SECNO 3.200  
 3470 ENCROACHMENT STATIONS= .0 200.0 TYPE= 1 TARGET= 199.999  
 3.20 4.98 658.48 .00 .00 658.79 .30 .99 .05 659.00  
 273. 0. 259. 14. 0. 104. 46. 109. 56. 658.00  
 .09 .00 2.50 .30 .150 .055 .150 .000 653.50 66.94  
 .005209 375. 290. 100. 2 0 0 0 133.06 200.00

0 FLOW DISTRIBUTION FOR SECNO= 3.20 CWSSEL= 658.48

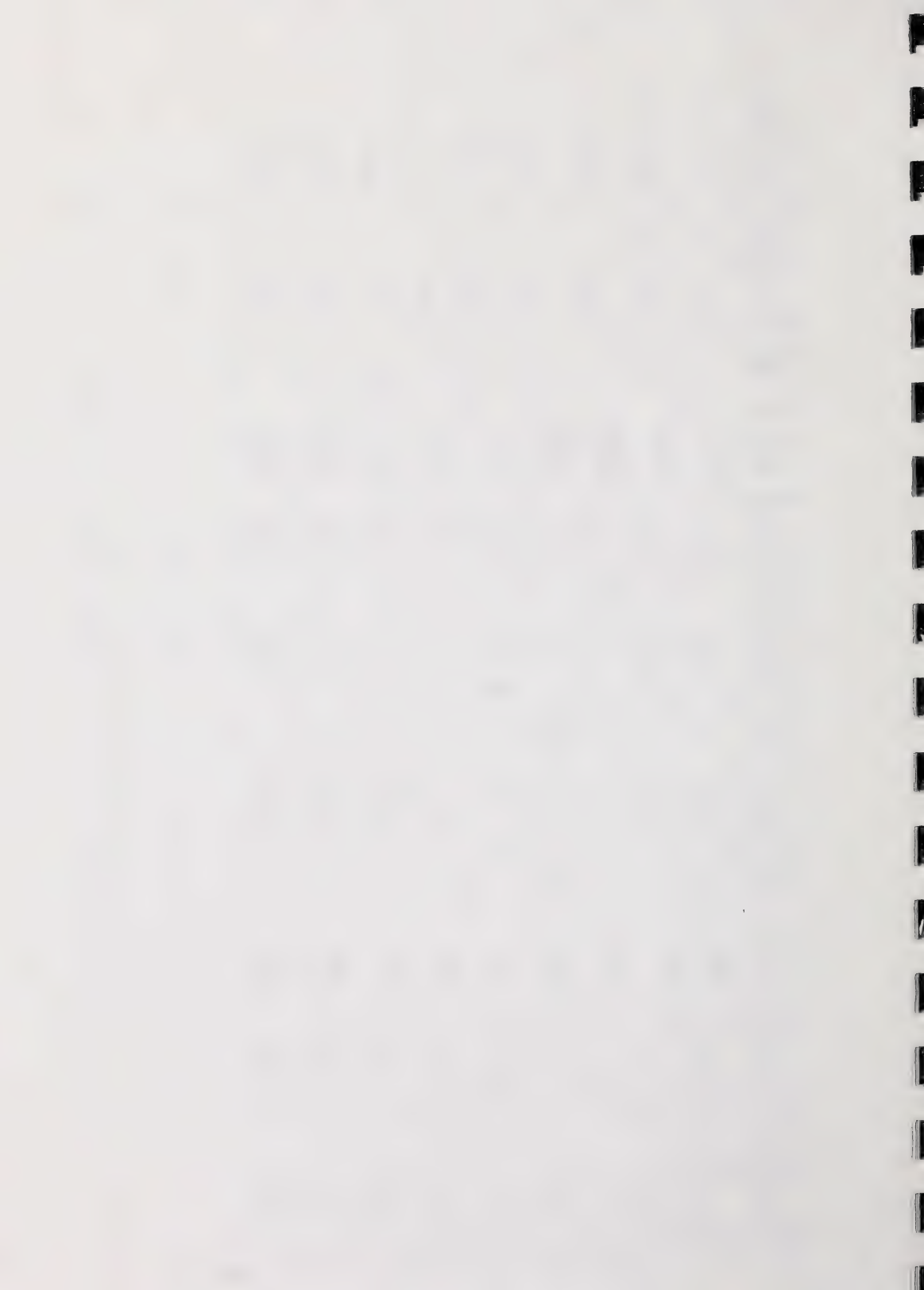
STA= 67. 105. 200.  
 PER Q= 95.0 5.0  
 AREA= 103.6 46.0  
 VEL= 2.5 .3

1490 NH CARD USED  
 \*SECNO 3.300

3.30 5.08 659.08 .00 .00 659.10 .02 .29 .03 657.00  
 273. 153. 120. 0. 341. 130. 0. 180. 93. 659.00  
 .19 .82 .02 .094 .055 .150 .000 654.00 55.83  
 .000545 230. 230. 200. 2 0 0 0 201.74 257.34

0 FLOW DISTRIBUTION FOR SECNO= 3.30 CWSSEL= 659.08

STA= 56. 70. 80. 90. 205. 210. 250. 257.  
 PER Q= 3.7 9.7 9.7 10.0 22.1 1.0 43.9 .0



AREA= 15.9 22.9 22.9 30.7 238.4 10.4 130.4 .3  
VEL= .6 1.2 1.2 .9 .3 .3 .9 .0

CCHV= .300 CEHV= .500

1490 NH CARD USED

\*SECNO 4.100

3280 CROSS SECTION 4.10 EXTENDED .44 METERS

3470 ENCROACHMENT STATIONS= 150.0 450.0 TYPE= 1 TARGET= 300.000  
4.10 5.14 659.14 .00 .00 659.17 .02 .07 .00 658.00  
273. 119. 148. 6. 318. 168. 23. 248. 128. 657.95  
.25 .37 .88 .27 .081 .055 .055 .000 654.00 150.00  
.000404 130. 140. 150. 2 0 0 0 300.00 450.00

02-04-91 15:54:02

PAGE 16

SECNO	DEPTH	CWSEL	CRWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	OLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	MTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 4.10 CWSEL= 659.14

STA= 150. 200. 205. 207. 212. 216. 218. 222. 370. 413. 450.  
PER Q= 3.0 3.9 3.6 9.6 7.2 3.4 3.6 9.3 54.1 2.3  
AREA= 57.2 15.3 9.7 24.7 19.0 9.3 13.2 170.1 168.4 23.3  
VEL= .1 .7 1.0 1.1 1.0 1.0 .7 .1 .9 .3

1490 NH CARD USED

\*SECNO 4.200

3280 CROSS SECTION 4.20 EXTENDED .45 METERS

3470 ENCROACHMENT STATIONS= 150.0 450.0 TYPE= 1 TARGET= 300.000  
4.20 5.14 659.14 .00 .00 659.18 .04 .00 .01 658.70  
273. 120. 146. 7. 177. 147. 17. 250. 129. 658.70  
.25 .68 .99 .41 .066 .055 .055 .000 654.00 150.00  
.001531 5. 5. 5. 0 0 0 0 300.00 450.00

0 FLOW DISTRIBUTION FOR SECNO= 4.20 CWSEL= 659.14

STA= 150. 204. 207. 209. 212. 214. 218. 222. 370. 411. 450.  
PER Q= 5.2 7.8 3.8 5.6 3.6 9.7 4.2 4.2 53.3 2.6  
AREA= 33.6 12.9 10.1 13.5 9.5 17.7 12.8 67.5 146.9 17.4  
VEL= .4 1.6 1.0 1.1 1.0 1.5 .9 .2 1.0 .4

1490 NH CARD USED

\*SECNO 4.300

3280 CROSS SECTION 4.30 EXTENDED .45 METERS

3470 ENCROACHMENT STATIONS= 150.0 450.0 TYPE= 1 TARGET= 300.000  
4.30 5.15 659.15 .00 .00 659.19 .04 .01 .00 658.70  
273. 120. 146. 7. 178. 147. 17. 252. 131. 658.70  
.26 .68 .99 .41 .066 .055 .055 .000 654.00 150.00  
.001530 6. 6. 6. 0 0 0 0 300.00 450.00

0 FLOW DISTRIBUTION FOR SECNO= 4.30 CWSEL= 659.15

STA= 150. 204. 207. 209. 212. 214. 218. 222. 370. 411. 450.  
PER Q= 5.2 7.8 3.8 5.6 3.6 9.6 4.2 4.2 53.3 2.6  
AREA= 33.6 12.9 10.1 13.5 9.5 17.7 12.8 67.5 146.9 17.4  
VEL= .4 1.6 1.0 1.1 1.0 1.5 .9 .2 1.0 .4

02-04-91 15:54:02

PAGE 17

SECNO	DEPTH	CWSEL	CRWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	OLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	MTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED

\*SECNO 4.400

3280 CROSS SECTION 4.40 EXTENDED .46 METERS

3470 ENCROACHMENT STATIONS= 150.0 450.0 TYPE= 1 TARGET= 300.000  
4.40 5.17 659.17 .00 .00 659.19 .02 .00 .00 658.00  
273. 129. 138. 6. 323. 154. 21. 254. 132. 658.47  
.26 .40 .90 .26 .082 .055 .055 .000 654.00 150.00  
.000462 5. 5. 5. 1 0 0 0 300.00 450.00

0 FLOW DISTRIBUTION FOR SECNO= 4.40 CWSEL= 659.17

STA= 150. 200. 204. 207. 212. 216. 218. 222. 370. 411. 450.  
PER Q= 3.3 3.1 5.0 10.3 7.7 3.7 3.9 10.2 50.7 2.1  
AREA= 58.2 11.4 13.7 24.8 19.1 9.3 13.3 173.0 154.0 21.4  
VEL= .2 .7 1.0 1.1 1.1 1.1 .8 .2 .9 .3

CCHV= .200 CEHV= .400

1490 NH CARD USED

\*SECNO 5.000

3470 ENCROACHMENT STATIONS= 150.0 275.0 TYPE= 1 TARGET= 125.000  
4.50 5.21 659.21 .00 .00 659.24 .03 .04 .00 658.00  
121. 12. 102. 8. 63. 116. 42. 287. 151. 658.00  
.29 .18 .88 .18 .150 .055 .150 .000 654.00 150.00  
.000586 90. 90. 90. 2 0 0 0 125.00 275.00

0 FLOW DISTRIBUTION FOR SECNO= 4.50 CWSEL= 659.21

STA= 150. 170. 200. 240. 275.  
PER Q= 4.0 5.5 84.2 6.3  
AREA= 26.4 36.3 115.9 42.3  
VEL= .2 .2 .9 .2

CCHV= .200 CEHV= .400

\*SECNO 5.000

3495 OVBANK AREA ASSUMED NON-EFFECTIVE, ELREA= 659.81 ELREA= 659.81



5.00	5.53	659.23	.00	.00	659.33	.09	.06	.02	659.81
121.	0.	121.	0.	0.	89.	0.	301.	158.	659.81
.31	.00	1.36	.00	.200	.045	.100	.000	653.70	.05
.000756	90.	90.	90.	2	0	0	.00	22.60	22.65

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1 02-04-91 15:54:02

PAGE 18

SECTO	DEPTH	CWSEL	CRWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECTO= 5.00 CWSEL= 659.23

STA= 0. 23.  
PER Q= 100.0  
AREA= 88.9  
VEL= 1.4

SPECIAL BRIDGE

SB	XX	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
1.00	1.56	1.50	22.70	8.00	.01	76.50	2.00	654.23	654.23	

\*SECTO 6.000  
PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
659.43	659.33	.00	0.	121.	77.	73.	658.61	659.81

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 659.81 ELREA= 659.81

6.00	5.64	659.34	.00	.00	659.43	.09	.10	.00	659.81
121.	0.	121.	0.	0.	91.	0.	301.	158.	659.81
.31	.00	1.32	.00	.000	.045	.100	.000	653.70	.05
.000698	9.	9.	9.	2	0	0	.00	22.62	22.66

0  
1 FLOW DISTRIBUTION FOR SECTO= 6.00 CWSEL= 659.34

STA= 0. 23.  
PER Q= 100.0  
AREA= 91.4  
VEL= 1.3

\*SECTO 8.100

3470 ENCROACHMENT STATIONS=	20.0	130.0	TYPE=	1	TARGET=	110.000
9.10	5.28	659.48	.00	.00	659.55	.07
121.	5.	110.	6.	35.	91.	33.
.37	.14	1.20	.18	.200	.045	.100
.000345	240.	240.	240.	2	0	0

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1 02-04-91 15:54:02

PAGE 19

SECTO	DEPTH	CWSEL	CRWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECTO= 8.10 CWSEL= 659.48

STA= 20. 40. 48. 50. 56. 74. 75. 105. 107.  
PER Q= .2 .6 .4 .2 8. 91.0 .5 4.5 .0  
AREA= 5.7 7.9 4.0 17.9 91.5 3.4 29.5 .6  
VEL= .0 .1 .1 .2 1.2 1.2 .2 .2 .1

\*SECTO 10.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 661.40 ELREA= 661.40

10.00	4.95	659.60	.00	.00	659.70	.09	.14	.01	661.40
121.	0.	121.	0.	0.	90.	0.	365.	186.	661.40
.43	.00	1.34	.00	.200	.045	.100	.000	654.65	5.73
.000812	270.	270.	270.	1	0	0	.00	22.57	28.30

0  
1 FLOW DISTRIBUTION FOR SECTO= 10.00 CWSEL= 659.60

STA= 6. 28.  
PER Q= 100.0  
AREA= 90.1  
VEL= 1.3

SPECIAL BRIDGE

SB	XX	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
1.00	1.56	1.50	22.90	14.00	.01	85.00	1.12	655.00	655.00	

\*SECTO 11.000  
PRESSURE FLOW

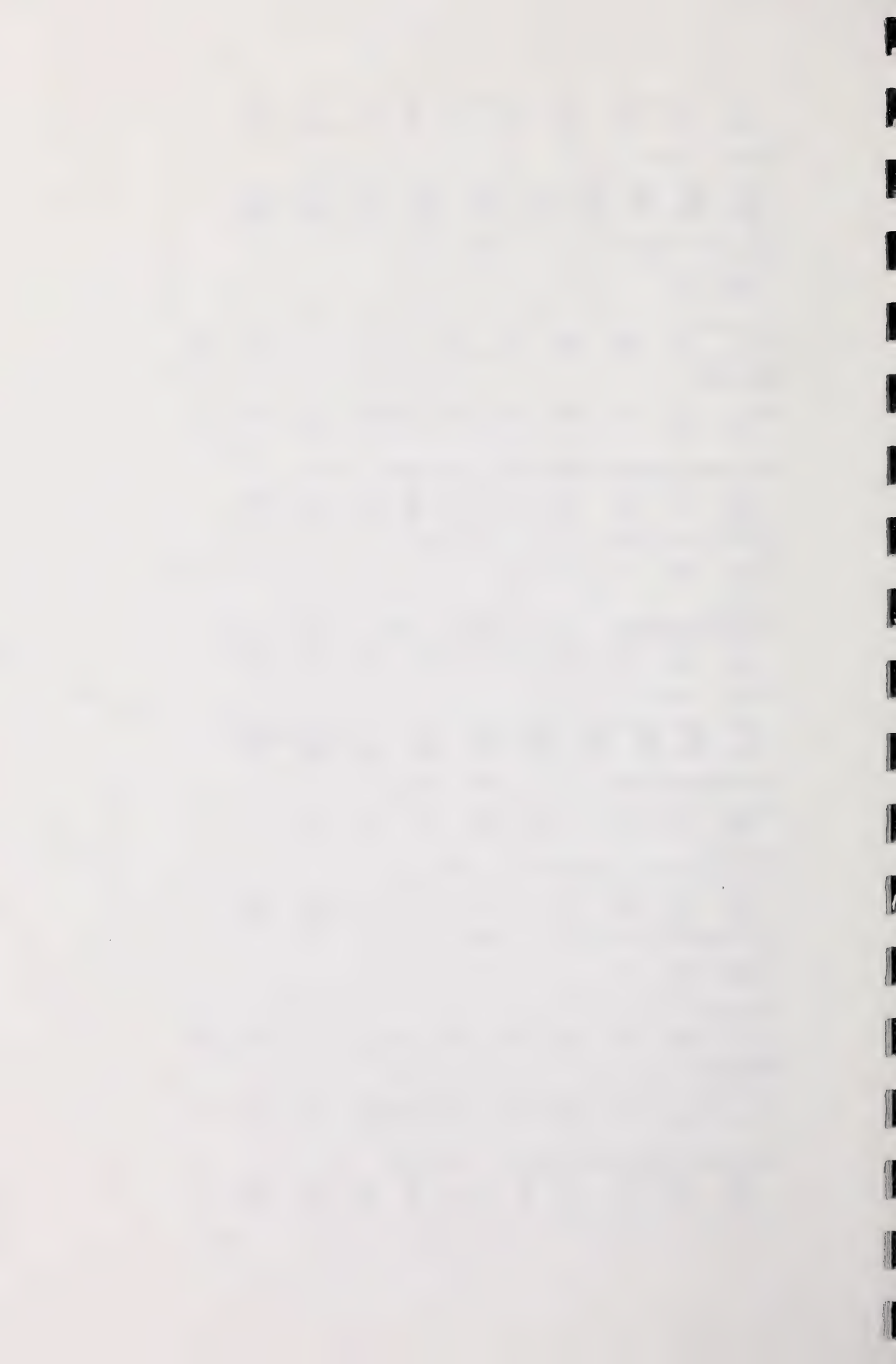
EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
659.77	659.70	.00	0.	121.	85.	78.	659.16	661.40

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 661.40 ELREA= 661.40

11.00	5.03	659.68	.00	.00	659.77	.09	.07	.00	661.40
121.	0.	121.	0.	0.	91.	0.	366.	187.	661.40
.43	.00	1.32	.00	.000	.045	.000	.000	654.65	5.72
.000775	9.	9.	9.	2	0	0	.00	22.58	28.30

0





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02-04-91 15:54:02

PAGE 20

SECCO	DEPTH	CWSEL	CRIMS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	KNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECCO= 11.00 CWSEL= 659.68

STA= 6. 28.  
PER Q= 100.0  
AREA= 91.5  
VEL= 1.3

\*SECCO 12.000

3470 ENCROACHMENT STATIONS=	25.0	75.0	TYPE=	1	TARGET=	50.000
12.00	5.11	659.68	.00	.00	659.81	.13 .03 .02 658.60
121.	3.	117.	1.	19.	73.	4. 369. 188. 658.92
.43	.15	1.61	.18	.200	.037	.100 .000 654.57 25.00
.000795	33.	33.	33.	2	0	0 0 .00 50.00 75.00

0 FLOW DISTRIBUTION FOR SECCO= 12.00 CWSEL= 659.68

STA= 25. 25. 36. 42. 62. 66. 75.  
PER Q= .0 1.5 .8 96.8 .4 .5  
AREA= .4 12.1 6.1 72.6 2.4 3.8  
VEL= .1 .2 .2 1.6 .2 .2

\*SECCO 13.000

3470 ENCROACHMENT STATIONS=	70.0	190.0	TYPE=	1	TARGET=	120.000
13.00	4.72	659.72	.00	.00	659.84	.12 .03 .00 659.08
121.	6.	115.	1.	59.	73.	4. 373. 191. 659.08
.44	.10	1.58	.14	.200	.037	.100 .000 655.00 70.00
.000729	35.	35.	35.	0	0	0 0 .00 120.00 190.00

0 FLOW DISTRIBUTION FOR SECCO= 13.00 CWSEL= 659.72

STA= 70. 160. 179. 190.  
PER Q= 4.9 94.6 .5  
AREA= 58.8 72.6 4.0  
VEL= .1 1.6 .1

\*SECCO 13.100

3370 NORMAL BRIDGE,NRD= 6 MIN ELTRD= 659.08 MAX ELLC= 659.08

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02-04-91 15:54:02

PAGE 21

SECCO	DEPTH	CWSEL	CRIMS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	KNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS=	60.0	190.0	TYPE=	1	TARGET=	130.000
13.10	4.69	659.69	.00	.00	659.85	.16 .00 .02 659.08
121.	19.	100.	2.	64.	51.	4. 374. 191. 659.08
.44	.30	1.97	.41	.200	.037	.100 .000 655.00 60.00
.006611	1.	1.	1.	2	0	0 -21.32 130.00 190.00

0 FLOW DISTRIBUTION FOR SECCO= 13.10 CWSEL= 659.69

STA= 60. 160. 179. 190.  
PER Q= 15.9 82.8 1.3  
AREA= 64.0 50.9 3.8  
VEL= .3 2.0 .4

\*SECCO 13.200

3370 NORMAL BRIDGE,NRD= 6 MIN ELTRD= 659.08 MAX ELLC= 659.08

3470 ENCROACHMENT STATIONS=	50.0	190.0	TYPE=	1	TARGET=	140.000
13.20	4.83	659.83	.00	.00	659.95	.12 .08 .01 659.08
121.	25.	93.	2.	86.	54.	5. 376. 193. 659.08
.44	.29	1.74	.43	.200	.037	.100 .000 655.00 50.00
.004859	15.	15.	15.	2	0	0 -21.33 140.00 190.00

0 FLOW DISTRIBUTION FOR SECCO= 13.20 CWSEL= 659.83

STA= 50. 160. 179. 190.  
PER Q= 20.9 77.2 1.9  
AREA= 85.9 53.6 5.3  
VEL= .3 1.7 .4

\*SECCO 14.000

3470 ENCROACHMENT STATIONS=	40.0	190.0	TYPE=	1	TARGET=	150.000
14.00	4.86	659.86	.00	.00	659.95	.10 .00 .00 659.08
121.	10.	110.	1.	97.	75.	6. 376. 193. 659.08
.44	.11	1.46	.15	.200	.037	.100 .000 655.00 40.00
.000930	1.	1.	1.	2	0	0 0 150.00 190.00

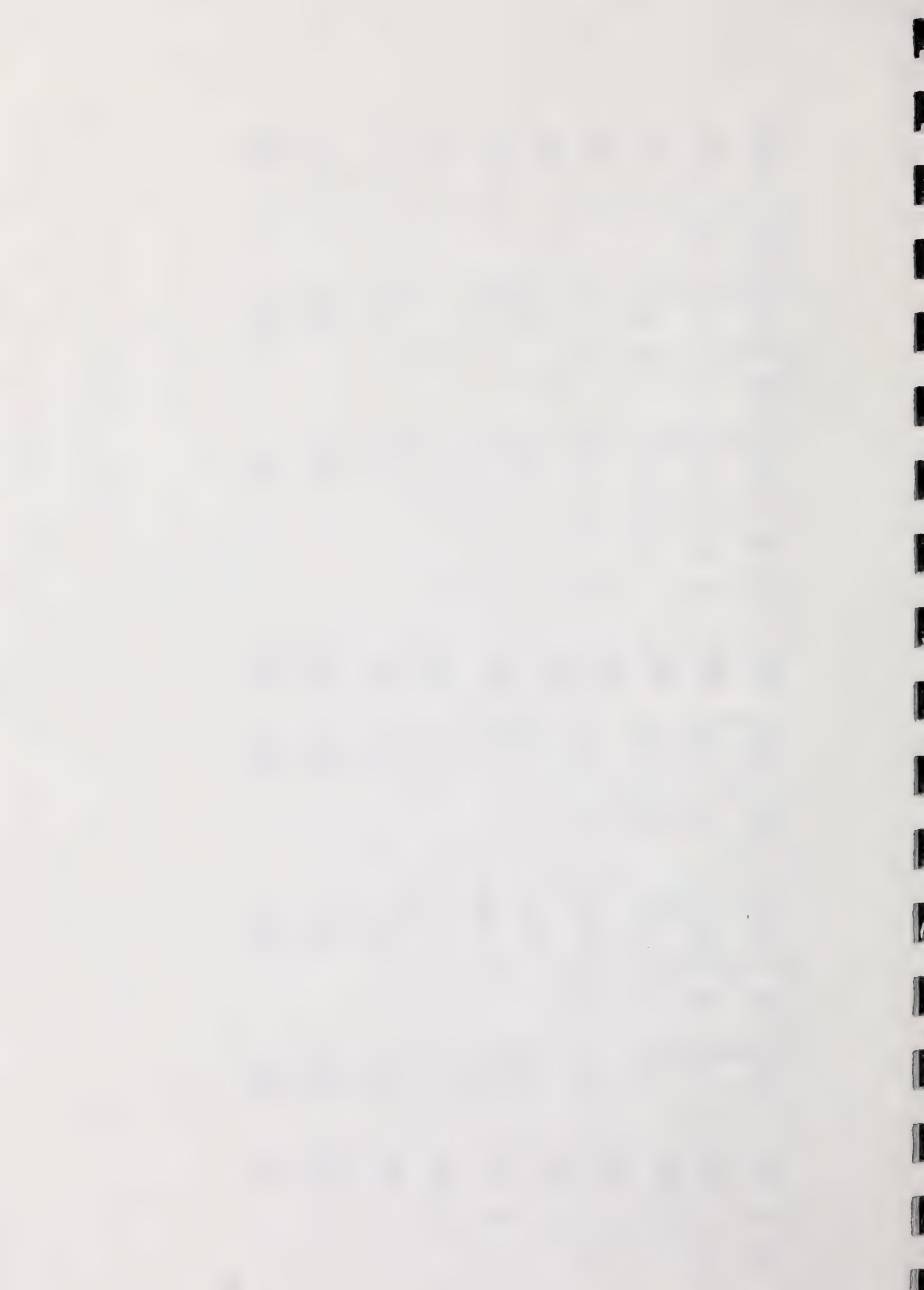
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PAGE 22

SECCO	DEPTH	CWSEL	CRIMS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	KNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECCO= 14.00 CWSEL= 659.86

STA= 40. 160. 179. 190.  
PER Q= 8.5 90.8 .7  
AREA= 97.3 75.4 5.6  
VEL= .1 1.5 .2



\*SECNO 15.000

3470 ENCROACHMENT STATIONS= 520.0 661.6 TYPE= 1 TARGET= -520.000  
 13.00 4.84 659.87 .00 .00 659.97 .19 .02 .00 659.52  
 121. 5. 97. 0. 148. 62. 0. 382. 197. 460.50  
 .45 .16 1.56 .00 .200 .037 .100 .000 655.03 520.00  
 .000783 30. 30. 30. 2 0 0 0 139.16 659.16

0 FLOW DISTRIBUTION FOR SECNO= 15.00 CWSL= 659.87

STA= 520. 533. 574. 637. 641. 660.

PER Q= 1.5 6.9 10.7 .5 80.4  
 AREA= 13.2 51.3 79.8 3.8 62.3  
 VEL= .1 .2 .2 .2 1.6

\*SECNO 16.000

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 10.0 344.5 TYPE= 1 TARGET= -10.000  
 16.00 3.98 660.37 .00 .00 660.60 .23 .57 .05 660.87  
 121. 5. 115. 0. 44. 53. 2. 450. 268. 660.15  
 .51 .12 2.19 .11 .200 .037 .100 .000 656.39 13.13  
 .002497 445. 445. 445. 2 0 0 0 178.37 205.43

0 FLOW DISTRIBUTION FOR SECNO= 16.00 CWSL= 660.37

STA= 13. 50. 100. 105. 150. 151. 189. 205.

PER Q= .5 2.0 .2 1.8 .0 95.4 .2  
 AREA= 6.8 18.4 1.8 16.6 .2 52.7 1.8  
 VEL= .1 .1 .1 .1 .1 2.2 .1

1 02-04-91 15:54:02

PAGE 23

SECNO	DEPTH	CWSL	CRIMS	WSRLK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

\*SECNO 17.000

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 500.0 710.5 TYPE= 1 TARGET= -500.000  
 17.00 3.90 661.12 .00 .00 661.32 .20 .71 .01 661.20  
 121. 2. 119. 0. 28. 60. 0. 483. 323. 664.90  
 .56 .08 1.99 .00 .200 .037 .100 .000 657.22 500.00  
 .001651 354. 354. 354. 2 0 0 0 134.29 672.65

0 FLOW DISTRIBUTION FOR SECNO= 17.00 CWSL= 661.12

STA= 500. 620. 621. 646. 677.

PER Q= 1.4 .5 98.1  
 AREA= 20.5 .5 6.6 59.7  
 VEL= .1 .1 .1 2.0

\*SECNO 18.000

3470 ENCROACHMENT STATIONS= 500.0 637.1 TYPE= 1 TARGET= -500.000  
 18.00 4.59 662.00 660.56 .00 662.28 .28 .93 .04 661.99  
 121. 5. 113. 3. 9. 46. 14. 515. 376. 661.42  
 .61 .55 2.44 .22 .040 .037 .100 .000 657.41 500.00  
 .002214 415. 415. 415. 2 15 0 0 117.89 617.89

0 FLOW DISTRIBUTION FOR SECNO= 18.00 CWSL= 662.00

STA= 500. 535. 555. 557. 575. 593. 612. 618.

PER Q= 3.9 93.6 .2 .4 .6 1.2 .1  
 AREA= 8.6 46.4 .7 2.9 3.6 5.6 .8  
 VEL= .6 2.4 .3 .2 .2 .3 .1

\*SECNO 19.000

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 102.2 222.7 TYPE= 1 TARGET= -146.000  
 19.00 3.85 662.14 .00 .00 662.40 .26 .11 .01 662.02  
 121. 1. 120. 0. 3. 53. 0. 518. 379. 662.53  
 .61 .44 2.25 .00 .040 .037 .100 .000 658.29 102.20  
 .002228 40. 40. 40. 2 0 0 0 40.48 149.38

0 FLOW DISTRIBUTION FOR SECNO= 19.00 CWSL= 662.14

STA= 102. 111. 118. 129. 150.

PER Q= 1.1 .1 .0 98.8  
 AREA= 2.6 .5 .2 53.1  
 VEL= .5 .2 .2 2.3

\*SECNO 19.100

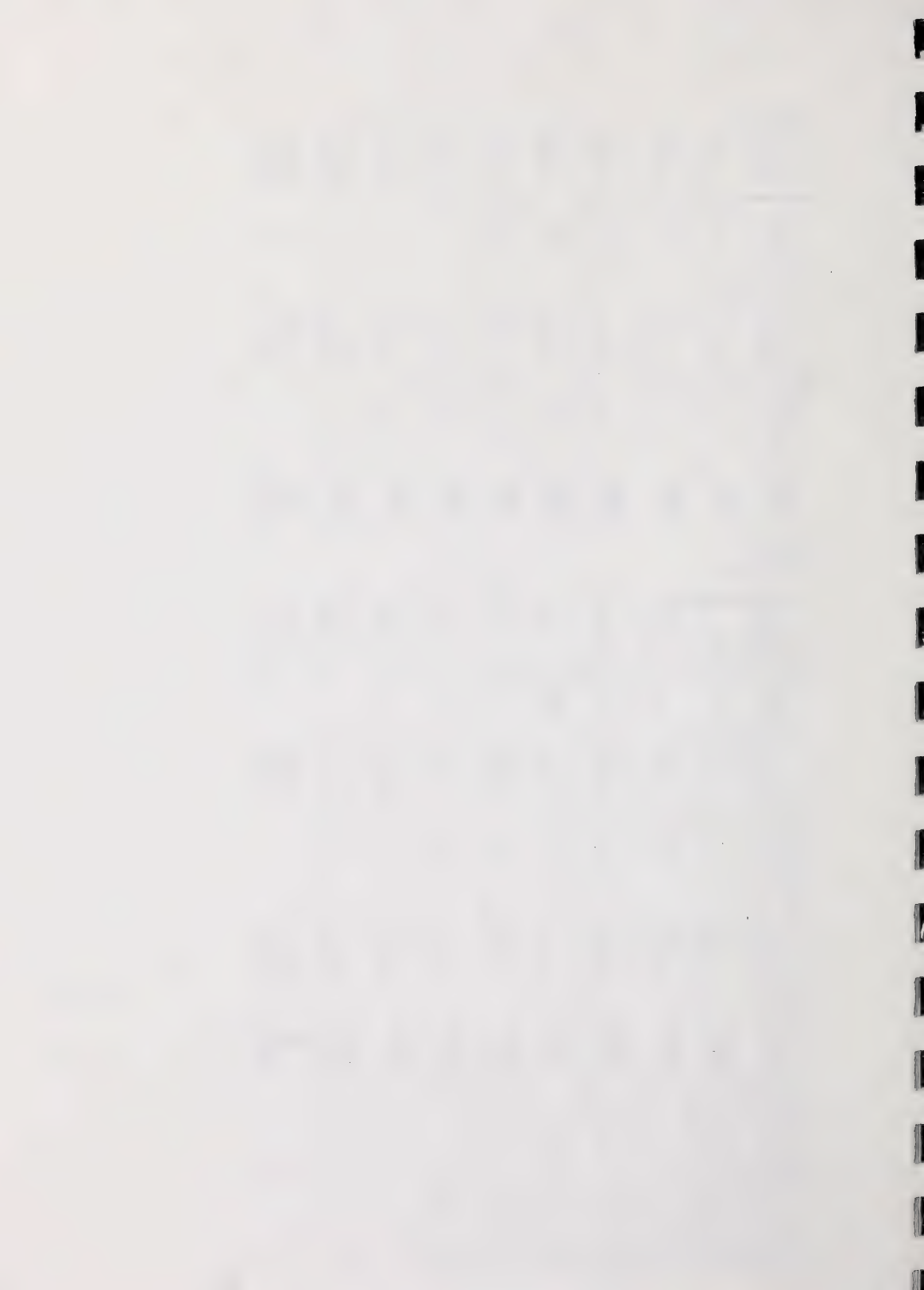
3265 DIVIDED FLOW

3370 NORMAL BRIDGE,WRD= 14 MIN ELTRD= 662.10 MAX ELLC= 663.00

3470 ENCROACHMENT STATIONS= 958.0 1056.0 TYPE= 1 TARGET= -958.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 661.20 ELREA= 662.69

PAGE 24



19.10	3.74	662.12	.00	.00	662.42	.30	.01	.02	662.42
121.	0.	121.	0.	2.	50.	0.	518.	379.	662.69
.61	.27	2.43	.00	.040	.037	.100	.000	658.38	958.00
.003741	3.	3.	3.	2	0	0	.00	41.46	1017.36

0 FLOW DISTRIBUTION FOR SECNO= 19.10 CWSL= 662.12

STA= 958. 980. 982. 1017.  
 PER Q= .4 .0 99.6  
 AREA= 1.7 .0 49.6  
 VEL= .3 .0 2.4

\*SECNO 19.200

3265 DIVIDED FLOW

3370 NORMAL BRIDGE, WAD= 14 MIN ELTRD= 662.10 MAX ELLO= 663.00

3470 ENCROACHMENT STATIONS= 958.0 1056.0 TYPE= 1 TARGET= -958.000

1 02-04-91 15:54:02

PAGE 25

SECNO	DEPTH	CWSL	CRWS	WSRLK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XLN	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 661.20 ELREA= 662.69

19.20	3.89	662.27	.00	.00	662.52	.26	.09	.01	662.42
121.	3.	118.	0.	6.	52.	0.	519.	380.	662.69
.62	.55	2.27	.00	.040	.037	.100	.000	658.38	958.00
.004190	24.	24.	24.	2	0	0	-33	50.11	1017.37

0 FLOW DISTRIBUTION FOR SECNO= 19.20 CWSL= 662.27

STA= 958. 980. 981. 991. 1017.  
 PER Q= 2.4 .1 .2 97.3  
 AREA= 4.9 .2 .8 51.8  
 VEL= .6 .5 .3 2.3

\*SECNO 20.000

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 100.1 212.0 TYPE= 1 TARGET= -143.000  
 20.00 3.91 662.33 .00 .00 662.54 .21 .01 662.37  
 121. 1. 120. 0. 3. 59. 0. 520. 380. 662.33  
 .62 .42 2.04 .00 .040 .037 .100 .000 658.42 100.10  
 .001737 3. 3. 3. 2 0 0 .00 32.94 146.83

0 FLOW DISTRIBUTION FOR SECNO= 20.00 CWSL= 662.33

STA= 100. 105. 110. 111. 147.  
 PER Q= .7 .2 .0 99.1  
 AREA= 1.8 .8 .0 58.7  
 VEL= .5 .3 .0 2.0

\*SECNO 21.000

3470 ENCROACHMENT STATIONS= 127.0 228.6 TYPE= 1 TARGET= -127.000  
 21.00 4.18 662.51 .00 .00 662.60 .09 .04 662.28  
 121. 8. 113. 0. 14. 83. 0. 522. 382. 662.77  
 .62 .57 1.37 .00 .040 .037 .100 .000 658.33 127.00  
 .001044 29. 29. 29. 2 0 0 .00 64.25 191.25

0 FLOW DISTRIBUTION FOR SECNO= 21.00 CWSL= 662.51

STA= 127. 134. 146. 151. 192.  
 PER Q= 2.9 3.1 .4 93.6  
 AREA= 5.6 6.7 1.3 82.6  
 VEL= .6 .6 .4 1.4

\*SECNO 22.000

3470 ENCROACHMENT STATIONS= 230.0 516.8 TYPE= 1 TARGET= -230.000  
 22.00 4.84 662.76 .00 .00 662.81 .05 .20 662.46  
 121. 50. 47. 24. 98. 32. 61. 553. 413. 659.58  
 .69 .51 1.47 .39 .040 .037 .100 .000 657.92 230.00  
 .000815 220. 220. 220. 2 0 0 .00 217.25 447.25

0 FLOW DISTRIBUTION FOR SECNO= 22.00 CWSL= 662.76

STA= 230. 236. 300. 386. 399. 409. 447.  
 PER Q= 2.4 21.6 16.3 1.1 39.0 19.6  
 AREA= 5.1 45.8 43.5 4.1 32.0 61.1  
 VEL= .6 .6 .5 .3 1.5 .4

\*SECNO 22.100

3470 ENCROACHMENT STATIONS= 50.0 135.0 TYPE= 1 TARGET= -50.000  
 22.10 3.15 662.95 .00 .00 663.28 .33 .36 .11 663.50  
 121. 0. 121. 0. 0. 47. 0. 582. 441. 100000.00  
 .72 .00 2.56 .00 .040 .037 .100 .000 659.80 110.12  
 .003582 240. 240. 240. 2 0 0 .00 21.46 131.59

0 FLOW DISTRIBUTION FOR SECNO= 22.10 CWSL= 662.95

STA= 110. 135.  
 PER Q= 100.0  
 AREA= 47.3

PAGE 26





VEL= 2.6

\*SECNO 22.200

3370 NORMAL BRIDGE, NRD= 4 MIN ELTRD= 663.00 MAX ELLC= 663.75

1 02-04-91 15:54:02

PAGE 27

SECNO	DEPTH	CWSEL	CRWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	KLCH	KLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS=	200.0	290.0	TYPE=	1	TARGET=	-200.000			
22.20	3.07	662.87	.00	.00	663.41	.54	.05	.08	663.75
121.	0.	121.	0.	0.	37.	0.	583.	441.	663.75
.72	.00	3.26	.00	.040	.037	.100	.000	659.80	260.00
.006379	10.	10.	10.	2	0	0	.00	15.00	275.00

0 FLOW DISTRIBUTION FOR SECNO= 22.20 CWSEL= 662.87

STA= 260. 275.  
PER Q= 100.0  
AREA= 37.1  
VEL= 3.3

\*SECNO 22.300

3370 NORMAL BRIDGE, NRD= 4 MIN ELTRD= 663.00 MAX ELLC= 663.75

3470 ENCROACHMENT STATIONS=	200.0	290.0	TYPE=	1	TARGET=	-200.000			
22.30	3.13	662.93	.00	.00	663.45	.52	.03	.00	663.75
121.	0.	121.	0.	0.	38.	0.	583.	441.	663.75
.72	.00	3.19	.00	.040	.037	.100	.000	659.80	260.00
.005980	4.	4.	4.	2	0	0	.00	15.00	275.00

0 FLOW DISTRIBUTION FOR SECNO= 22.30 CWSEL= 662.93

STA= 260. 275.  
PER Q= 100.0  
AREA= 37.9  
VEL= 3.2

\*SECNO 22.400

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS=	220.0	432.9	TYPE=	1	TARGET=	-220.000			
22.40	3.46	663.43	.00	.00	663.55	.12	.02	.08	662.95
121.	2.	104.	15.	6.	64.	39.	583.	442.	661.98
.72	.29	1.62	.38	.040	.037	.100	.000	659.97	220.00
.001223	10.	10.	10.	3	0	0	.00	119.09	351.12

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1 02-04-91 15:54:02

PAGE 28

SECNO	DEPTH	CWSEL	CRWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	KLCH	KLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 22.40 CWSEL= 663.43

STA= 220. 242. 247. 270. 298. 302. 321. 351.  
PER Q= .7 .0 .8 86.2 3.2 8.2 .9  
AREA= 3.3 .2 2.6 64.4 7.7 23.8 7.8  
VEL= .2 .1 .4 1.6 .5 .4 .1

\*SECNO 23.000

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS=	240.0	320.0	TYPE=	1	TARGET=	80.000			
23.00	3.56	663.53	.00	.00	663.61	.08	.05	.01	662.95
121.	1.	89.	30.	5.	67.	33.	589.	447.	661.98
.74	.29	1.33	.91	.040	.037	.040	.000	659.97	240.00
.000783	50.	50.	50.	2	0	0	.00	77.16	320.00

0 FLOW DISTRIBUTION FOR SECNO= 23.00 CWSEL= 663.53

STA= 240. 242. 255. 260. 270. 298. 302. 320.  
PER Q= .0 .1 .0 1.0 73.9 7.1 17.9  
AREA= .3 1.1 .2 3.5 67.1 8.1 25.2  
VEL= .2 .1 .1 .4 1.3 1.1 .9

\*SECNO 23.100

3470 ENCROACHMENT STATIONS=	.1	100.0	TYPE=	1	TARGET=	99.900			
23.10	2.83	663.63	.00	.00	663.82	.19	.17	.05	663.50
121.	0.	121.	0.	0.	62.	1.	600.	455.	663.50
.75	.20	1.94	.20	.040	.037	.040	.000	660.80	22.41
.002460	130.	130.	130.	2	0	0	.00	51.46	73.86

0 FLOW DISTRIBUTION FOR SECNO= 23.10 CWSEL= 663.63

STA= 22. 30. 65. 74.  
PER Q= .1 .1 99.8 .1  
AREA= .5 62.2 .6  
VEL= .2 1.9 .2

1 02-04-91 15:54:02

PAGE 29

SECNO	DEPTH	CWSEL	CRWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	KLCH	KLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST



\*SECNO 23.200

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS=	120.0	240.0	TYPE=	1	TARGET=	120.000	
23.20	2.80	663.55	.00	.00	664.00	.46	.08
121.	0.	121.	0.	0.	40.	0.	601.
76	.00	2.99	.00	.040	.037	.040	.000
.007340	20.	20.	20.	2	0	0	.000

0 FLOW DISTRIBUTION FOR SECNO= 23.20 CWSL= 663.55

STA= 165. 185.  
PER Q= 100.0  
AREA= 40.5  
VEL= 3.0

SPECIAL BRIDGE

SB	KK	KKOR	COFO	ADLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.05	1.56	1.45	.00	13.00	1.00	46.50	1.75	661.00	661.00

\*SECNO 23.300

PRESSURE FLOW

EGPRS	EDLMC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTND
664.09	664.08	.12	0.	121.	47.	42.	663.57	664.20

3470 ENCROACHMENT STATIONS=	120.0	240.0	TYPE=	1	TARGET=	120.000	
23.30	2.94	663.69	.00	.00	664.09	.40	.08
121.	0.	121.	0.	0.	43.	0.	601.
76	.00	2.80	.00	.000	.037	.000	.000
.006268	8.	8.	8.	3	0	0	.000

0 FLOW DISTRIBUTION FOR SECNO= 23.30 CWSL= 663.69

STA= 165. 185.  
PER Q= 100.0  
AREA= 43.2  
VEL= 2.8

1 02-04-91 15:54:02

PAGE 30

SECNO	DEPTH	CWSL	CRWS	WSELK	EG	HV	HL	OLOSS	BANK RLEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	MTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

\*SECNO 23.400

3280 CROSS SECTION 23.40 EXTENDED .09 METERS

3470 ENCROACHMENT STATIONS=	120.0	240.0	TYPE=	1	TARGET=	99.900	
23.40	3.29	664.09	.00	.00	664.19	.10	.04
121.	4.	113.	5.	10.	78.	12.	603.
76	.38	1.44	.38	.040	.037	.040	.000
.000987	20.	20.	20.	2	0	0	.000

0 FLOW DISTRIBUTION FOR SECNO= 23.40 CWSL= 664.09

STA= 0. 30. 65. 100.  
PER Q= 3.2 93.0 3.7  
AREA= 10.2 78.4 11.9  
VEL= .4 1.4 .4

\*SECNO 24.000

3470 ENCROACHMENT STATIONS=	220.0	290.5	TYPE=	1	TARGET=	-220.000	
24.00	3.53	664.25	.00	.00	664.55	.30	.28
121.	0.	121.	0.	0.	50.	0.	616.
78	.00	2.43	.00	.040	.037	.040	.000
.002919	180.	180.	180.	2	0	0	.000

0 FLOW DISTRIBUTION FOR SECNO= 24.00 CWSL= 664.25

STA= 265. 291.  
PER Q= 100.0  
AREA= 49.8  
VEL= 2.4

\*SECNO 24.100

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSL  
3693 PROBABLE MINIMUM SPECIFIC ENERGY  
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 230.0 400.0 TYPE= 1 TARGET= -230.000

1 02-04-91 15:54:02

PAGE 31

SECNO	DEPTH	CWSL	CRWS	WSELK	EG	HV	HL	OLOSS	BANK RLEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	MTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

24.10	3.20	664.40	664.40	.00	665.31	.92	.02	.25	663.60
121.	1.	119.	1.	1.	28.	2.	617.	469.	663.40
.78	.53	4.28	.62	.040	.012	.040	.000	661.20	272.16
.001627	10.	10.	10.	20	12	0	.00	21.19	293.35

0 FLOW DISTRIBUTION FOR SECNO= 24.10 CWSL= 664.40



STA= 272. 275. 289. 293.  
 PER Q= .5 98.5 1.0  
 AREA= 1.1 27.9 2.0  
 VEL= .5 4.3 .6

\*SECNO 24.200

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE,NRD= 30 MIN ELTRD= 664.30 MAX ELLC= 670.00

3685 20 TRIALS ATTEMPTED MSEL,CWSEL  
 3693 PROBABLE MINIMUM SPECIFIC ENERGY  
 3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=	230.0	400.0	TYPE=	1	TARGET=	-230.000		
24.20	3.22	664.42	664.42	.00	665.89	1.46	.01	.22
121.	0.	121.	0.	1.	23.	0.	617.	469.
.78	.01	5.36	.00	.040	.012	.040	.000	661.20
.002991	6.	6.	6.	20	16	0	-8.45	21.38
								293.45

0 FLOW DISTRIBUTION FOR SECNO= 24.20 CWSEL= 664.42

STA= 272. 275. 289.  
 PER Q= .0 100.0  
 AREA= .5 22.6  
 VEL= .0 5.4

\*SECNO 24.300

3301 HV CHANGED MORE THAN HVINS

1 02-04-91 15:54:02

PAGE 32

SECNO	DEPTH	CWSEL	CRWS	MSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3370 NORMAL BRIDGE,NRD= 30 MIN ELTRD= 664.30 MAX ELLC= 670.00

3470 ENCROACHMENT STATIONS=	230.0	400.0	TYPE=	1	TARGET=	-230.000		
24.30	4.17	665.37	664.42	.00	666.09	.73	.06	.15
121.	8.	113.	0.	19.	29.	0.	618.	470.
.78	.43	3.92	.00	.040	.012	.040	.000	661.20
.001612	28.	28.	28.	19	16	0	-23.88	67.17
								297.17

0 FLOW DISTRIBUTION FOR SECNO= 24.30 CWSEL= 665.37

STA= 230. 240. 270. 275. 289.  
 PER Q= 2.5 3.8 33.1 28.8  
 AREA= 4.9 12.4 2.1 28.8  
 VEL= .6 .4 .4 3.9

\*SECNO 24.400  
 WATER EL=MS CARD= 666.000

3470 ENCROACHMENT STATIONS=	230.0	400.0	TYPE=	1	TARGET=	-230.000		
24.40	4.80	666.00	.00	.00	666.16	.16	.00	.11
121.	17.	99.	5.	51.	51.	13.	618.	470.
.79	.33	1.94	.36	.040	.012	.040	.000	661.20
.000151	6.	6.	6.	0	0	0	.00	69.70
								299.70

0 FLOW DISTRIBUTION FOR SECNO= 24.40 CWSEL= 666.00

STA= 230. 240. 270. 275. 289. 300.  
 PER Q= 2.9 8.2 3.0 81.9 4.0  
 AREA= 11.3 31.5 8.5 51.0 13.4  
 VEL= .3 .3 .4 1.9 .4

\*SECNO 27.000

3470 ENCROACHMENT STATIONS=	240.0	315.8	TYPE=	1	TARGET=	-240.000		
27.00	4.37	666.13	.00	.00	666.18	.05	.00	.02
121.	24.	97.	0.	46.	86.	0.	619.	471.
.79	.51	1.13	.01	.040	.037	.040	.000	661.76
.000400	10.	10.	10.	2	0	0	.00	73.37
								313.37

1 02-04-91 15:54:02

PAGE 33

SECNO	DEPTH	CWSEL	CRWS	MSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 27.00 CWSEL= 666.13

STA= 240. 246. 247. 259. 276. 286. 313.  
 PER Q= .8 .4 5.6 8.1 4.7 80.4  
 AREA= 3.1 1.1 12.8 18.4 10.9 86.1  
 VEL= .3 .4 .5 .5 .5 1.1

\*SECNO 28.000

3470 ENCROACHMENT STATIONS=	120.0	370.0	TYPE=	1	TARGET=	-120.000		
28.00	3.54	666.30	.00	.00	666.38	.09	.19	.01
121.	4.	91.	26.	12.	66.	42.	665.	501.
.87	.35	1.37	.62	.050	.037	.050	.000	662.76
.000701	365.	365.	365.	2	0	0	.00	92.50
								240.46

0 FLOW DISTRIBUTION FOR SECNO= 28.00 CWSEL= 666.30

STA= 148. 165. 173. 197. 226. 240.  
 PER Q= 1.2 2.2 75.1 21.2 .3  
 AREA= 5.8 5.8 66.4 39.3 2.5  
 VEL= .3 .5 1.4 .7 .2

\*SECNO 29.000





3470 ENCROACHMENT STATIONS= 130.0 445.7 TYPE= 1 TARGET= -130.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELREA= 666.48 ELREA= 667.56

29.00	2.94	666.61	.00	.00	666.75	.14	.35	.03	666.48
121.	12.	109.	0.	20.	63.	0.	697.	528.	667.56
.93	.59	1.73	.00	.050	.037	.050	.000	663.67	141.15
.002035	311.	311.	311.	2	0	0	.00	81.83	222.99

0 FLOW DISTRIBUTION FOR SECNO= 29.00 CWSL= 666.61

STA= 141. 151. 174. 178. 188. 225.

PER Q=	1.2	8.1	.4	.2	90.1
AREA=	3.4	14.5	1.5	.9	87.0
VEL=	.4	.7	.4	.2	1.7

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02-04-91 15:54:02

PAGE 34

SECNO	DEPTH	CWSL	CRWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOS	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	KLOBL	KLCH	KLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

\*SECNO 29.100

3470 ENCROACHMENT STATIONS=	130.0	225.0	TYPE=	1	TARGET=	-130.000
29.10	2.49	666.69	.00	.00	666.88	.19
121.	7.	113.	1.	12.	56.	1.
.93	.58	2.01	.52	.050	.037	.050
.002945	45.	45.	45.	1	0	0

0 FLOW DISTRIBUTION FOR SECNO= 29.10 CWSL= 666.69

STA= 140. 143. 150. 175. 210. 213.

PER Q=	.0	.4	5.5	93.6	.5
AREA=	.3	1.3	10.8	56.4	1.2
VEL=	.2	.3	.6	2.0	.5

SPECIAL BRIDGE

SB	KK	KXOR	COFO	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
1.00	1.00	1.60	.00	.20	.10	.10	.00	664.50	664.50	

\*SECNO 29.200

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
75213.53	667.59	.71	121.	0.	0.	0.	665.70	665.70

3685 20 TRIALS ATTEMPTED WSEL,CWSL

3710 WSEL ASSUMED BASED ON MIN DIFF

3470 ENCROACHMENT STATIONS=	125.0	210.0	TYPE=	1	TARGET=	-125.000
29.20	1.30	667.00	.00	.00	667.34	.34
121.	12.	110.	2.	13.	38.	4.
.94	2.10	3.39	1.02	.050	.037	.050
.014002	5.	5.	5.	20	0	11

0 FLOW DISTRIBUTION FOR SECNO= 29.20 CWSL= 667.00

STA= 129. 142. 149. 151. 155. 160. 168. 175. 182. 191. 201.

PER Q=	6.1	7.5	3.9	11.2	14.2	14.3	4.7	3.0	32.8	2.2
AREA=	5.3	4.9	2.0	5.0	6.3	7.6	3.7	2.8	11.7	2.6
VEL=	1.4	1.9	2.3	2.7	2.8	2.3	1.5	1.3	3.4	1.0

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02-04-91 15:54:02

PAGE 35

SECNO	DEPTH	CWSL	CRWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOS	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	KLOBL	KLCH	KLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

\*SECNO 29.300

3470 ENCROACHMENT STATIONS=	125.0	220.0	TYPE=	1	TARGET=	-125.000
29.30	2.55	667.05	666.90	.00	667.45	.40
121.	8.	110.	2.	13.	38.	4.
.94	.65	2.93	.65	.050	.038	.050
.005331	10.	10.	10.	6	14	0

0 FLOW DISTRIBUTION FOR SECNO= 29.30 CWSL= 667.05

STA= 134. 178. 197. 210. 210.

PER Q=	6.8	91.1	2.1	.0
AREA=	12.7	37.6	3.8	.0
VEL=	.6	2.9	.6	.0

\*SECNO 29.400

29.40	2.46	668.46	.00	.00	668.69	.23	1.21	.03	669.00
121.	0.	121.	0.	0.	57.	0.	715.	548.	669.00
.97	.00	2.12	.00	.050	.038	.050	.000	666.00	2.69
.004746	240.	240.	240.	3	0	0	.00	44.61	47.31

0 FLOW DISTRIBUTION FOR SECNO= 29.40 CWSL= 668.46

STA= 3. 50.

PER Q=	100.0
AREA=	57.0
VEL=	2.1

\*SECNO 29.500

29.50	2.50	668.70	.00	.00	668.95	.26	.26	.01	670.00
121.	0.	121.	0.	0.	54.	0.	717.	550.	669.00
.97	.00	2.24	.00	.050	.038	.050	.000	666.20	30.51
.009040	40.	40.	40.	2	0	0	.00	63.48	93.99

0



FLOW DISTRIBUTION FOR SECNO= 29.50 CWSL= 668.70

STA= 31. 100.  
PER Q= 100.0  
AREA= 94.0  
VEL= 2.2

1 02-04-91 15:54:02

PAGE 36

SECNO	DEPTH	CWSL	CRWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

\*SECNO 29.600

3265 DIVIDED FLOW

3280 CROSS SECTION 29.60 EXTENDED 1.02 METERS

29.60	2.52	669.02	.00	.00	669.09	.06	.08	.04	669.00
121.	0.	121.	0.	0.	113.	0.	721.	553.	668.00
.99	.00	1.07	.00	.050	.038	.050	.000	666.30	.00
.000662	50.	50.	50.	2	0	0	.00	50.00	80.00

0 FLOW DISTRIBUTION FOR SECNO= 29.60 CWSL= 669.02

STA= 0. 80.  
PER Q= 100.0  
AREA= 113.4  
VEL= 1.1

\*SECNO 30.000

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSL  
3693 PROBABLE MINIMUM SPECIFIC ENERGY  
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 682.00 ELREA= 680.62

30.00	2.04	668.73	668.73	.00	669.76	1.03	.02	.39	682.00
121.	0.	121.	0.	0.	27.	0.	722.	553.	680.62
.99	.00	4.50	.00	.050	.038	.050	.000	666.69	.09
.021455	10.	10.	10.	20	15	0	0	13.21	62.10

0 FLOW DISTRIBUTION FOR SECNO= 30.00 CWSL= 668.73

STA= 0. 62.  
PER Q= 100.0  
AREA= 26.9  
VEL= 4.5

1 02-04-91 15:54:02

PAGE 37

SECNO	DEPTH	CWSL	CRWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= .300 CEHV= .500

\*SECNO 30.100

3280 CROSS SECTION 30.10 EXTENDED 2.11 METERS

3370 NORMAL BRIDGE,NRD= 27 MIN ELTRD= 680.60 MAX ELLC= 670.85

3685 20 TRIALS ATTEMPTED WSEL,CWSL  
3693 PROBABLE MINIMUM SPECIFIC ENERGY  
3720 CRITICAL DEPTH ASSUMED

30.10	2.11	668.81	668.81	.00	670.09	1.28	.02	.13	666.70
121.	0.	121.	0.	0.	24.	0.	722.	553.	666.70
.99	.00	5.02	.00	.012	.012	.012	.000	666.70	.00
.003296	3.	3.	3.	20	24	0	-107.06	62.10	62.10

0 FLOW DISTRIBUTION FOR SECNO= 30.10 CWSL= 668.81

STA= 0. 62.  
PER Q= 100.0  
AREA= 24.1  
VEL= 5.0

\*SECNO 30.110

3280 CROSS SECTION 30.11 EXTENDED 2.69 METERS

3370 NORMAL BRIDGE,NRD= 27 MIN ELTRD= 680.60 MAX ELLC= 670.85

3685 20 TRIALS ATTEMPTED WSEL,CWSL  
3693 PROBABLE MINIMUM SPECIFIC ENERGY  
3720 CRITICAL DEPTH ASSUMED

30.11	2.69	669.39	668.81	.00	670.27	.87	.05	.12	666.70
121.	0.	121.	0.	0.	29.	0.	722.	554.	666.70
.99	.00	4.14	.00	.012	.012	.012	.000	666.70	.00
.002035	20.	20.	20.	22	24	0	-138.06	62.10	62.10

0 FLOW DISTRIBUTION FOR SECNO= 30.11 CWSL= 669.39

STA= 0. 62.  
PER Q= 100.0  
AREA= 29.2  
VEL= 4.1

1 02-04-91 15:54:02

PAGE 38

SECNO	DEPTH	CWSL	CRWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT



TIME SLOPE	VLOB KLOBL	VCH XLCH	VROB KLOBR	XNL ITRIAL	XNCH IDC	XNR ICONT	WTN CORAR	ELMIN TOPWID	SSTA ENDST
*SECNO 30.120									
3280 CROSS SECTION		30.12 EXTENDED		2.79 METERS					
3370 NORMAL BRIDGE,NRD= 27 MIN ELTRD= 680.60 MAX ELLC= 670.85									
30.12	2.79	669.49	668.81	.00	670.32	.83	.04	.01	666.70
121.	0.	121.	0.	0.	30.	0.	723.	555.	666.70
.99	.00	4.04	.00	.012	.012	.012	.000	666.70	.00
.001921	20.	20.	20.	4	24	0	-143.38	62.10	62.10
0 FLOW DISTRIBUTION FOR SECNO= 30.12 CWSL= 669.49									
STA= 0. 62.									
PER Q= 100.0									
AREA= 30.0									
VEL= 4.0									

*SECNO 30.130									
3280 CROSS SECTION		30.13 EXTENDED		2.87 METERS					
3370 NORMAL BRIDGE,NRD= 27 MIN ELTRD= 680.60 MAX ELLC= 670.85									
30.13	2.87	669.57	668.81	.00	670.37	.80	.04	.01	666.70
121.	0.	121.	0.	0.	31.	0.	724.	557.	666.70
.99	.00	3.96	.00	.012	.012	.012	.000	666.70	.00
.001844	20.	20.	20.	4	24	0	-147.68	62.10	62.10
0 FLOW DISTRIBUTION FOR SECNO= 30.13 CWSL= 669.57									
STA= 0. 62.									
PER Q= 100.0									
AREA= 30.6									
VEL= 4.0									

*SECNO 30.200									
3280 CROSS SECTION		30.20 EXTENDED		2.65 METERS					

1 02-04-91 15:54:02

PAGE 39

SECNO	DEPTH	CWSL	CRWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	KLOBL	XLCH	KLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
3370 NORMAL BRIDGE,NRD= 27 MIN ELTRD= 680.60 MAX ELLC= 671.05									
30.20	2.65	669.55	668.98	.00	670.42	.87	.02	.04	666.90
121.	0.	121.	0.	0.	29.	0.	724.	557.	666.90
.99	.00	4.13	.00	.012	.012	.012	.000	666.90	.00
.002008	10.	10.	10.	4	25	0	-135.49	62.10	62.10
0 FLOW DISTRIBUTION FOR SECNO= 30.20 CWSL= 669.55									
STA= 0. 62.									
PER Q= 100.0									
AREA= 29.3									
VEL= 4.1									

\*SECNO 33.000

3265 DIVIDED FLOW									
33.00	3.27	670.17	.00	.00	670.57	.40	.01	.14	682.00
121.	0.	121.	0.	0.	43.	0.	724.	557.	680.62
.99	.00	2.80	.00	.040	.037	.040	.000	666.90	.00
.005541	3.	3.	3.	4	0	0	.00	13.20	62.10
0 FLOW DISTRIBUTION FOR SECNO= 33.00 CWSL= 670.17									
STA= 0. 62.									
PER Q= 100.0									
AREA= 43.2									
VEL= 2.8									

\*SECNO 34.000

3470 ENCROACHMENT STATIONS= 38.0 109.0 TYPE= 1 TARGET= 71.000									
34.00	3.77	671.48	.00	.00	671.56	.08	.89	.10	668.97
121.	42.	49.	29.	43.	32.	35.	762.	578.	670.00
1.11	.98	1.54	.83	.040	.037	.040	.000	667.71	38.00
.000887	490.	490.	490.	3	0	0	.00	71.00	109.00

1 02-04-91 15:54:02

PAGE 40

SECNO	DEPTH	CWSL	CRWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	KLOBL	XLCH	KLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
FLOW DISTRIBUTION FOR SECNO= 34.00 CWSL= 671.48									
STA= 38. 45. 68. 79. 106. 109.									
PER Q= 2.6 32.1 40.9 23.1 1.2									
AREA= 5.4 37.5 32.1 32.9 2.6									
VEL= .6 1.0 1.5 .9 .6									

\*SECNO 35.000

3470 ENCROACHMENT STATIONS= 38.0 104.0 TYPE= 1 TARGET= 129.999									
35.00	3.73	671.91	.00	.00	672.05	.14	.46	.03	670.37
121.	28.	76.	17.	20.	40.	20.	800.	603.	670.68
1.18	1.37	1.89	.85	.040	.037	.040	.000	668.18	51.39
.001528	400.	400.	400.	3	0	0	.00	52.61	104.00

0





FLOW DISTRIBUTION FOR SECNO= 35.00 CWSL= 671.91

STA= 51. 52. 59. 64. 79. 104.  
 PER Q= .2 11.5 11.1 62.9 14.4  
 AREA= .5 10.4 9.3 40.3 20.4  
 VEL= .5 1.3 1.3 1.9 .9

\*SECNO 36.000

3470 ENCROACHMENT STATIONS= 270.0 457.1 TYPE= 1 TARGET= -270.000  
 36.00 2.68 672.74 .00 .00 672.98 .24 .88 .05 672.00  
 121. 11. 110. 0. 13. 49. 0. 829. 625. 675.70  
 1.23 .87 2.25 .00 .040 .037 .040 .000 670.06 270.00  
 .003368 405. 405. 405. 2 0 0 0 56.43 326.43

0 FLOW DISTRIBUTION FOR SECNO= 36.00 CWSL= 672.74

STA= 270. 289. 299. 331.  
 PER Q= 4.6 4.8 90.7  
 AREA= 7.2 5.8 48.7  
 VEL= .8 1.0 2.3

\*SECNO 37.000

3470 ENCROACHMENT STATIONS= 150.0 263.9 TYPE= 1 TARGET= -150.000  
 37.00 3.08 673.98 .00 .00 674.11 .13 1.10 .03 672.33  
 121. 37. 84. 0. 28. 48. 0. 862. 650. 674.03  
 1.31 1.32 1.75 .00 .040 .037 .040 .000 670.90 150.46  
 .001683 478. 478. 478. 1 0 0 0 48.02 198.48

0  
 1 02-04-91 15:54:02

PAGE 41

SECNO	DEPTH	CWSL	CRWS	WSELK	EG	HV	HL	OLOSS	BANK	ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT	
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA	
SLOPE	KLOBL	KLCH	KLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST	

FLOW DISTRIBUTION FOR SECNO= 37.00 CWSL= 673.98

STA= 150. 158. 166. 175. 199.  
 PER Q= .6 9.8 20.5 69.0  
 AREA= 1.8 10.2 16.4 47.8  
 VEL= .4 1.2 1.5 1.7

\*SECNO 38.000

3470 ENCROACHMENT STATIONS= 159.8 283.6 TYPE= 1 TARGET= -213.000  
 38.00 2.35 674.73 .00 .00 675.11 .38 .88 .12 674.13  
 121. 5. 116. 0. 3. 42. 0. 879. 662. 684.95  
 1.34 1.36 2.77 .00 .040 .037 .040 .000 672.38 159.75  
 .007646 283. 283. 283. 2 0 0 0 37.40 197.15

0 FLOW DISTRIBUTION FOR SECNO= 38.00 CWSL= 674.73

STA= 160. 166. 208.  
 PER Q= 3.7 96.3  
 AREA= 3.3 42.1  
 VEL= 1.4 2.8

\*SECNO 39.000

3470 ENCROACHMENT STATIONS= 20.0 100.0 TYPE= 1 TARGET= 80.000  
 39.00 3.33 677.11 .00 .00 677.34 .22 2.17 .05 676.32  
 121. 1. 55. 0. 2. 35. 0. 914. 685. 675.97  
 1.43 .58 2.13 .74 .040 .037 .040 .000 675.78 54.21  
 .001867 650. 650. 650. 3 0 0 0 34.86 89.07

0 FLOW DISTRIBUTION FOR SECNO= 39.00 CWSL= 677.11

STA= 54. 58. 80. 89.  
 PER Q= .7 95.9 3.4  
 AREA= 1.5 54.6 5.5  
 VEL= .6 2.1 .7

\*SECNO 41.000

3470 ENCROACHMENT STATIONS= 152.0 210.0 TYPE= 1 TARGET= 58.000  
 41.00 2.78 678.78 .00 .00 678.90 .11 1.53 .03 676.63  
 121. 29. 62. 29. 26. 35. 27. 989. 729. 676.63  
 1.62 1.13 1.78 1.08 .040 .037 .040 .000 676.00 152.00  
 .001252 1010. 1010. 1010. 5 0 0 0 52.10 204.10

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 1 02-04-91 15:54:02

PAGE 42

SECNO	DEPTH	CWSL	CRWS	WSELK	EG	HV	HL	OLOSS	BANK	ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT	
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA	
SLOPE	KLOBL	KLCH	KLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST	

FLOW DISTRIBUTION FOR SECNO= 41.00 CWSL= 678.78

STA= 152. 169. 183. 202. 204.  
 PER Q= 24.3 51.4 24.0 .3  
 AREA= 26.1 34.9 26.3 .8  
 VEL= 1.1 1.8 1.1 .4

\*SECNO 42.000

3470 ENCROACHMENT STATIONS= 220.0 264.8 TYPE= 1 TARGET= 56.000  
 42.00 2.47 679.14 .00 .00 679.28 .14 .37 .01 677.29  
 121. 36. 39. 46. 26. 19. 30. 1009. 741. 677.18  
 1.66 1.38 2.06 1.52 .040 .037 .040 .000 676.67 220.00  
 .001972 240. 240. 240. 1 0 0 0 44.80 264.80

0 FLOW DISTRIBUTION FOR SECNO= 42.00 CWSL= 679.14

STA= 220. 238. 246. 253. 265.  
 PER Q= 29.7 31.9 21.7 16.7  
 AREA= 26.0 18.7 14.8 15.7  
 VEL= 1.4 2.1 1.8 1.3



\*SECNO 43.000

3470 ENCROACHMENT STATIONS=	105.0	133.0	TYPE=	1	TARGET=	40.000
43.00	3.06	681.91	.00	.00	682.33	.42
121.	10.	80.	31.	6.	26.	12.
1.76	1.78	3.10	2.53	.040	.037	.040
.004032	1063.	1063.	1063.	2	0	0

0 FLOW DISTRIBUTION FOR SECNO= 43.00 CWSL= 681.91

STA=	107.	109.	110.	113.	123.	127.	127.	128.	130.
PER Q=	.2	1.5	6.7	66.2	22.6	.6	1.9	.4	
AREA=	.4	1.3	41.0	25.9	9.8	.3	1.5	.6	
VEL=	.6	1.4	2.0	3.1	2.8	2.1	1.6	.8	

\*SECNO 44.000

3470 ENCROACHMENT STATIONS=	110.0	160.0	TYPE=	1	TARGET=	50.000
44.00	3.63	682.53	.00	.00	682.74	.21
121.	52.	69.	0.	27.	32.	0.
1.78	1.89	2.13	.00	.040	.037	.040
.002044	125.	125.	125.	2	0	0

0 FLOW DISTRIBUTION FOR SECNO= 44.00 CWSL= 682.53

STA=	110.	123.	132.	147.
PER Q=	6.3	36.4	57.2	
AREA=	6.4	21.0	32.5	
VEL=	1.2	2.1	2.1	

SECNO	DEPTH	CWSL	CRWS	WSLK	EG	HV	HL	CLOSS	BANK	ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT	
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA	
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST	

1 FLOW DISTRIBUTION FOR SECNO= 44.00 CWSL= 682.53

STA=	110.	123.	132.	147.
PER Q=	6.3	36.4	57.2	
AREA=	6.4	21.0	32.5	
VEL=	1.2	2.1	2.1	

\*SECNO 45.000

3470 ENCROACHMENT STATIONS=	.0	70.0	TYPE=	1	TARGET=	69.999
45.00	3.29	683.03	.00	.00	683.28	.24
121.	16.	72.	33.	10.	28.	23.
1.81	1.57	2.55	1.47	.040	.037	.040
.002355	237.	237.	237.	3	0	0

0 FLOW DISTRIBUTION FOR SECNO= 45.00 CWSL= 683.03

STA=	35.	40.	43.	53.	67.	70.
PER Q=	4.4	8.6	59.4	26.1	1.4	
AREA=	4.8	5.3	28.2	20.6	2.1	
VEL=	1.1	2.0	2.5	1.5	.8	

\*SECNO 47.000

3470 ENCROACHMENT STATIONS=	.0	95.0	TYPE=	1	TARGET=	94.999
47.00	3.44	685.14	.00	.00	685.33	.20
121.	0.	49.	72.	0.	21.	42.
1.94	.43	2.29	1.71	.040	.037	.040
.002338	871.	871.	871.	2	0	0

0 FLOW DISTRIBUTION FOR SECNO= 47.00 CWSL= 685.14

STA=	61.	62.	70.	82.	95.
PER Q=	.1	40.5	39.0	20.5	
AREA=	.2	21.4	24.7	17.4	
VEL=	.4	2.3	1.9	1.4	

\*SECNO 47.100

3470 ENCROACHMENT STATIONS=	110.0	160.0	TYPE=	1	TARGET=	-110.000
47.10	3.66	687.16	.00	.00	687.31	.15
121.	3.	118.	0.	5.	68.	0.
2.12	.54	1.33	.00	.040	.037	.040
.001299	1150.	1150.	1150.	2	0	0

0 FLOW DISTRIBUTION FOR SECNO= 47.10 CWSL= 687.16

1 02-04-91 15:54:02

PAGE 44

SECNO	DEPTH	CWSL	CRWS	WSLK	EG	HV	HL	CLOSS	BANK	ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT	
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA	
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST	

1 FLOW DISTRIBUTION FOR SECNO= 47.10 CWSL= 687.16

STA=	110.	120.	125.	160.
PER Q=	.4	1.9	97.7	
AREA=	1.7	3.3	68.4	
VEL=	.3	.7	1.7	

\*SECNO 48.000

3470 ENCROACHMENT STATIONS=	270.0	367.2	TYPE=	1	TARGET=	-270.000
48.00	3.16	688.86	.00	.00	688.98	.12
121.	87.	134.	0.	61.	19.	0.
2.32	1.42	1.85	.00	.040	.037	.040
.001781	1100.	1100.	1100.	2	0	0

0 FLOW DISTRIBUTION FOR SECNO= 48.00 CWSL= 688.86

STA=	270.	295.	312.	329.
PER Q=	24.2	47.4	28.4	
AREA=	26.7	34.4	18.6	
VEL=	1.1	1.7	1.8	

\*SECNO 49.000

3470 ENCROACHMENT STATIONS=	28.4	76.3	TYPE=	1	TARGET=	47.960
49.00	2.33	690.38	.00	.00	690.50	.12
121.	0.	121.	0.	80.	1383.	0.
2.49	.00	1.51	.00	.040	.037	.040
.001527	919.	919.	919.	2	0	0



0  
FLOW DISTRIBUTION FOR SECNO= 49.00 CWSL= 690.38

STA= 30. 76.  
PER Q= 100.0  
AREA= 80.2  
VEL= 1.5

1  
02-04-91 15:54:02

PAGE 45

THIS RUN EXECUTED 02-04-91

\*\*\*\*\*  
HEC2 RELEASE DATED NOV 76 UPDATED MAY 1984  
ERROR CORR - 01,02,03,04,05,16  
MODIFICATION - 50,51,52,53,54,55,56  
IBM-PC VERSION AUGUST 1985  
\*\*\*\*\*

NOTE- ASTERISK (\*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

7 Persons conflux at sec

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCM	ELTRD	ELLC	ELMIN	Q	CWSL	CRWS	EG	10X*8	VCH	AREA	.01K
*	1.000	.00	.00	.00	652.75	273.00	655.26	655.26	656.08	253.16	4.01	69.10	17.16
	1.100	10.00	.00	.00	652.75	273.00	655.84	.00	656.26	96.60	2.90	103.14	27.78
	1.200	20.00	.00	.00	652.75	273.00	656.11	.00	656.43	64.49	2.53	123.68	34.00
	1.300	20.00	.00	.00	652.75	273.00	656.28	.00	656.55	51.73	2.34	136.50	37.96
	2.000	60.00	.00	.00	652.92	273.00	656.60	.00	656.86	50.76	2.45	159.28	38.32
	3.100	265.00	.00	.00	653.00	273.00	657.61	.00	657.75	24.11	1.72	200.94	55.60
	3.200	290.00	.00	.00	653.50	273.00	658.48	.00	658.79	52.09	2.50	149.56	37.83
	3.300	230.00	.00	.00	654.00	273.00	659.08	.00	659.10	5.45	.92	471.87	116.98
	4.100	160.00	.00	.00	654.00	273.00	659.14	.00	659.17	4.04	.88	510.05	125.88
	5.200	5.00	.00	.00	654.00	273.00	659.14	.00	659.18	15.31	.99	341.72	69.77
	4.300	6.00	.00	.00	654.00	273.00	659.15	.00	659.19	15.30	.99	341.87	69.79
	4.400	5.00	.00	.00	654.00	273.00	659.17	.00	659.19	4.62	.90	498.15	127.01
	4.500	90.00	.00	.00	654.00	121.00	659.21	.00	659.24	5.86	.88	220.91	49.98
	5.000	90.00	.00	.00	653.70	121.00	659.23	.00	659.81	7.56	1.30	88.92	44.00
	6.000	9.10	659.81	658.61	653.70	121.00	659.34	.00	659.43	6.98	1.32	91.39	45.81
	8.100	240.00	.00	.00	654.20	121.00	659.48	.00	659.55	3.45	1.20	160.30	65.13
	10.000	270.00	.00	.00	654.65	121.00	659.60	.00	659.70	8.12	1.34	90.08	42.48
	11.000	8.60	661.40	659.16	654.65	121.00	659.68	.00	659.77	7.75	1.32	91.49	43.46
	12.000	35.00	.00	.00	659.38	121.00	662.12	.00	659.81	7.95	1.45	97.28	42.91
	13.000	35.00	.00	.00	658.00	121.00	659.72	.00	659.84	7.29	1.58	135.32	44.82
	13.100	1.00	659.08	659.08	655.00	121.00	659.69	.00	659.85	66.11	1.97	118.77	14.88
	13.200	15.00	659.08	659.08	655.00	121.00	659.83	.00	659.95	48.59	1.74	144.77	17.36
	14.000	1.00	.00	.00	655.00	121.00	659.86	.00	659.95	5.90	1.46	178.32	49.80
	15.000	35.00	.00	.00	655.00	121.00	659.87	.00	659.97	7.56	1.56	63.44	24.40
	16.000	445.00	.00	.00	656.39	121.00	660.37	.00	660.60	24.97	2.19	98.34	24.21
	17.000	354.00	.00	.00	657.22	121.00	661.12	.00	661.32	16.51	1.99	87.33	29.78
	18.000	415.00	.00	.00	657.41	121.00	662.00	660.56	662.28	32.14	2.44	68.67	21.34
	19.000	40.00	.00	.00	658.29	121.00	662.14	.00	662.40	22.28	2.25	36.43	25.63
	19.100	3.00	662.10	663.00	658.38	121.00	662.12	.00	662.42	37.41	2.56	63.22	24.40
	19.200	23.50	662.10	663.00	658.38	121.00	662.27	.00	662.52	41.90	2.27	57.73	18.69
	20.000	3.00	.00	.00	658.42	121.00	662.33	.00	662.54	17.37	2.04	61.30	29.03
	21.000	28.50	.00	.00	658.33	121.00	662.51	.00	662.60	10.44	1.37	96.28	37.44
	22.000	220.00	.00	.00	657.92	121.00	662.76	.00	662.81	8.15	1.47	191.47	42.40
	22.100	240.00	.00	.00	660.80	121.00	662.95	.00	663.28	35.82	2.56	47.28	20.22
	22.200	10.00	663.00	663.75	659.80	121.00	662.87	.00	663.41	63.79	3.26	37.12	15.15
	22.300	4.40	663.00	663.75	659.80	121.00	662.93	.00	663.45	59.80	3.19	37.92	15.65
	22.400	10.00	.00	.00	659.97	121.00	663.43	.00	663.55	12.23	1.62	109.85	34.60
	23.000	50.00	.00	.00	659.97	121.00	663.53	.00	663.61	7.83	1.33	105.43	43.24
	23.100	130.00	.00	.00	660.80	121.00	663.63	.00	663.82	24.60	2.94	63.24	24.40
	23.200	20.00	.00	.00	660.75	121.00	663.55	.00	664.00	73.40	2.99	40.48	14.12
	23.300	7.60	664.20	663.57	660.75	121.00	663.69	.00	664.09	62.68	2.80	43.24	15.28
	23.400	20.00	.00	.00	660.80	121.00	664.09	.00	664.19	9.87	1.44	100.44	38.51
	24.000	180.00	.00	.00	660.72	121.00	664.25	.00	664.55	29.19	2.43	49.82	22.39
	24.100	10.00	.00	.00	661.20	121.00	664.40	664.40	665.31	16.47	4.28	30.97	30.00
*	24.200	6.00	664.30	670.00	661.20	121.00	664.42	664.42	665.89	29.91	5.36	23.06	22.12
	24.300	28.00	664.30	670.00	661.20	121.00	665.37	664.42	666.09	16.12	3.92	48.13	30.14
*	24.400	6.00	.00	.00	661.20	121.00	666.00	.00	666.16	1.51	1.94	115.66	98.62
	27.000	10.00	.00	.00	661.76	121.00	666.13	.00	666.18	4.00	1.13	132.41	60.50
	28.000	365.00	.00	.00	662.76	121.00	666.30	.00	666.38	7.01	1.37	119.72	45.69
	29.000	311.00	.00	.00	663.67	121.00	666.61	.00	666.75	20.35	1.73	83.29	26.82
	29.100	45.00	.00	.00	664.20	121.00	666.69	.00	666.88	29.45	2.01	69.86	22.30
*	29.200	5.00	665.70	665.70	665.70	121.00	667.00	.00	667.34	140.02	3.39	51.77	10.23
	29.300	10.00	.00	.00	666.70	121.00	667.05	666.90	667.45	53.31	2.62	59.29	22.57
	29.400	240.00	.00	.00	666.00	121.00	668.46	.00	668.69	47.46	2.12	57.02	17.56
	29.500	40.00	.00	.00	666.20	121.00	668.70	.00	668.95	90.40	2.24	54.05	12.73
	29.600	50.00	.00	.00	666.50	121.00	669.02	.00	669.08	6.62	1.07	113.40	47.03
*	30.000	10.00	.00	.00	666.69	121.00	668.73	668.73	669.76	214.55	4.50	26.91	8.26
	30.100	2.00	680.60	670.85	666.70	121.00	668.81	668.81	670.09	32.96	5.02	25.39	21.98
*	30.110	20.00	680.60	670.85	666.70	121.00	669.39	668.81	670.27	20.35	4.14	29.22	26.82
	30.120	20.00	680.60	670.85	666.70	121.00	669.49	668.81	670.32	19.21	4.04	29.98	27.61
	30.130	20.00	680.60	670.85	666.70	121.00	669.57	668.81	670.37	18.44	3.96	30.56	28.18
	30.200	10.30	680.60	671.05	666.80	121.00	669.55	668.98	670.42	20.08	4.13	29.30	27.00
	33.000	3.00	.00	.00	666.90	121.00	670.17	.00	670.57	55.41	2.80	43.19	18.25
	34.000	490.00	.00	.00	667.71	121.00	671.48	.00	671.56	8.87	1.54	110.46	40.63
	35.000	399.75	.00	.00	668.18	121.00	671.91	.00	672.05	15.28	1.89	80.78	30.96
	36.000	404.30	.00	.00	670.06	121.00	672.74	.00	672.98	33.68	2.25	61.81	20.85
	37.000	472.00	.00	.00	670.98	121.00	673.98	.00	674.11	16.83	1.75	76.16	29.50
	38.000	282.50	.00	.00	672.38	121.00	674.73	.00	675.15	76.46	2.77	45.39	13.84
	39.000	650.00	.00	.00	673.78	121.00	677.11	.00	677.34	18.67	2.13	61.60	28.00
	41.000	1010.00	.00	.00	676.00	121.00	678.78	.00	678.90	12.52	1.78	88.06	34.20
	42.000	239.75	.00	.00	676.67	121.00	679.14	.00	679.28	19.72	2.06	75.20	27.25
	43.000	190.75	.00	.00	678.35	121.00	681.91	.00	682.33	40.52	3.10	43.72	19.01
	44.000	124.50	.00	.00	678.90	121.00	682.53	.00	682.74	20.44	2.14	59.91	26.74
	45.000	237.00	.00	.00	679.74	121.00	683.03	.00	683.28	23.55	2.55	60.88	24.94
	47.000	870.50	.00	.00	681.70	121.00	685.14	.00	685.33	23.38	2.29	63.68	25.03
	47.100	1150.00	.00	.00	683.50	121.00	687.16	.00	687.31	12.99	1.73	73.44	30.57
	48.000	1100.00	.00	.00	685.70	121.00	688.86	.00	688.98	17.81	1.85	79.62	28.67
	49.000	919.00	.00	.00	688.05	121.00	690.38	.00	690.50	15.27	1.51	80.17	30.96

1  
02-04-91 15:54:02

PAGE 49

7 Persons conflux at sec





## SUMMARY PRINTOUT TABLE 150

	SECNO	Q	WSEL	DIFWSP	DIFWSX	DIFWSY	TOPWID	XLCH
*	1.000	273.00	655.26	.00	.00	1.76	49.11	.00
	1.100	273.00	655.84	.00	.58	.00	69.24	10.00
	1.200	273.00	656.11	.00	.27	.00	77.84	20.00
	1.300	273.00	656.28	.00	.17	.00	81.85	20.00
	2.000	273.00	656.60	.00	.32	.00	81.39	60.00
	3.100	273.00	657.61	.00	1.01	.00	95.93	265.00
	3.200	273.00	658.48	.00	.87	.00	133.06	290.00
	3.300	273.00	659.08	.00	.59	.00	201.74	230.00
	4.100	273.00	659.14	.00	.07	.00	300.00	160.00
	4.200	273.00	659.14	.00	.00	.00	300.00	5.00
	4.300	273.00	659.15	.00	.01	.00	300.00	6.00
	4.400	273.00	659.17	.00	.02	.00	300.00	5.00
	4.500	121.00	659.21	.00	.04	.00	125.00	90.00
	5.000	121.00	659.23	.00	.02	.00	22.60	90.00
	6.000	121.00	659.34	.00	.11	.00	22.62	9.10
	8.100	121.00	659.48	.00	.14	.00	87.41	240.00
	10.000	121.00	659.60	.00	.12	.00	22.57	270.00
	11.000	121.00	659.68	.00	.07	.00	22.58	8.60
	12.000	121.00	659.68	.00	.00	.00	50.00	33.00
	13.000	121.00	659.72	.00	.04	.00	120.00	35.00
	13.100	121.00	659.69	.00	-.02	.00	130.00	1.00
	13.200	121.00	659.83	.00	.14	.00	140.00	15.00
	14.000	121.00	659.86	.00	.03	.00	150.00	1.00
	15.000	121.00	659.87	.00	.02	.00	139.16	30.00
	16.000	121.00	660.37	.00	.49	.00	178.37	445.00
	17.000	121.00	661.12	.00	.75	.00	134.29	354.00
	18.000	121.00	662.00	.00	.88	.00	117.89	415.00
	19.000	121.00	662.14	.00	.14	.00	40.48	40.00
	19.100	121.00	662.12	.00	-.02	.00	41.46	3.00
	19.200	121.00	662.27	.00	.14	.00	50.11	23.50
	20.000	121.00	662.33	.00	.06	.00	32.94	3.00
	21.000	121.00	662.51	.00	.12	.00	64.25	28.50
	22.000	121.00	662.76	.00	.25	.00	217.25	220.00
	22.100	121.00	662.95	.00	.19	.00	21.46	240.00
	22.200	121.00	662.87	.00	-.08	.00	15.00	10.00
	22.300	121.00	662.93	.00	.05	.00	15.00	4.40
	22.400	121.00	663.43	.00	.51	.00	119.09	10.00
	23.000	121.00	663.53	.00	.10	.00	77.16	50.00
	23.100	121.00	663.63	.00	.10	.00	51.46	130.00
	23.200	121.00	663.55	.00	-.08	.00	19.16	20.00
	23.300	121.00	663.69	.00	.14	.00	20.17	7.60
	23.400	121.00	664.09	.00	.40	.00	99.90	20.00
	24.000	121.00	664.25	.00	.16	.00	21.58	180.00
*	24.100	121.00	664.40	.00	.15	.00	21.19	10.00
*	24.200	121.00	664.42	.00	.03	.00	21.38	6.00
*	24.300	121.00	665.37	.00	.94	.00	67.17	28.00
*	24.400	121.00	666.00	.00	.63	.00	69.70	6.00
	27.000	121.00	666.13	.00	.13	.00	73.37	10.00
	28.000	121.00	666.30	.00	.18	.00	92.50	365.00
	29.000	121.00	666.61	.00	.31	.00	81.83	311.00
	29.100	121.00	666.69	.00	.08	.00	73.34	45.00
*	29.200	121.00	667.00	.00	.31	.00	71.79	5.00
*	29.300	121.00	667.05	.00	.04	.00	76.34	10.00
	29.400	121.00	668.46	.00	1.41	.00	44.61	240.00
	29.500	121.00	668.70	.00	.24	.00	63.48	40.00
	29.600	121.00	669.02	.00	.32	.00	50.00	50.00
*	30.000	121.00	668.73	.00	-.28	.00	13.21	10.00
*	30.100	121.00	668.81	.00	.08	.00	62.10	3.00
*	30.110	121.00	669.39	.00	.58	.00	62.10	20.00
	30.120	121.00	669.49	.00	.10	.00	62.10	20.00
	30.130	121.00	669.57	.00	.08	.00	62.10	20.00
	30.200	121.00	669.55	.00	-.02	.00	62.10	10.00
	33.000	121.00	670.17	.00	.62	.00	13.20	3.00
	34.000	121.00	671.48	.00	1.31	.00	71.00	490.00
	35.000	121.00	671.91	.00	.42	.00	52.61	399.75
	36.000	121.00	672.74	.00	.83	.00	56.43	404.50
	37.000	121.00	673.98	.00	1.24	.00	48.02	477.50
	38.000	121.00	674.73	.00	.76	.00	37.40	282.50
	39.000	121.00	677.11	.00	2.38	.00	34.86	650.00
	41.000	121.00	678.78	.00	1.67	.00	52.10	1010.00
	42.000	121.00	679.14	.00	.36	.00	44.80	239.75
	43.000	121.00	681.91	.00	2.77	.00	22.24	1062.75
	44.000	121.00	682.53	.00	.62	.00	26.65	124.50
	45.000	121.00	683.03	.00	.50	.00	34.95	237.00
	47.000	121.00	685.14	.00	2.10	.00	33.73	870.50
	47.100	121.00	687.16	.00	2.02	.00	42.92	1150.00
	48.000	121.00	688.86	.00	1.70	.00	48.98	1100.00
	49.000	121.00	690.38	.00	1.52	.00	45.92	919.00

1

02-04-91 15:54:02

PAGE 53

## SUMMARY OF ERRORS AND SPECIAL NOTES

CAUTION SECNO= 1.000 PROFILE= 1 CRITICAL DEPTH ASSUMED

CAUTION SECNO= 24.100 PROFILE= 1 CRITICAL DEPTH ASSUMED

CAUTION SECNO= 24.100 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY

CAUTION SECNO= 24.100 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 24.200 PROFILE= 1 CRITICAL DEPTH ASSUMED

CAUTION SECNO= 24.200 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY

CAUTION SECNO= 24.200 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL

NOTE SECNO= 24.400 PROFILE= 1 WSEL BASED ON X5 CARD

CAUTION SECNO= 29.200 PROFILE= 1 WSEL ASSUMED BASED ON MIN DIFF

CAUTION SECNO= 29.200 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 30.000 PROFILE= 1 CRITICAL DEPTH ASSUMED

CAUTION SECNO= 30.000 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY

CAUTION SECNO= 30.000 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 30.100 PROFILE= 1 CRITICAL DEPTH ASSUMED

CAUTION SECNO= 30.100 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY

CAUTION SECNO= 30.100 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL



1

PAGE 1

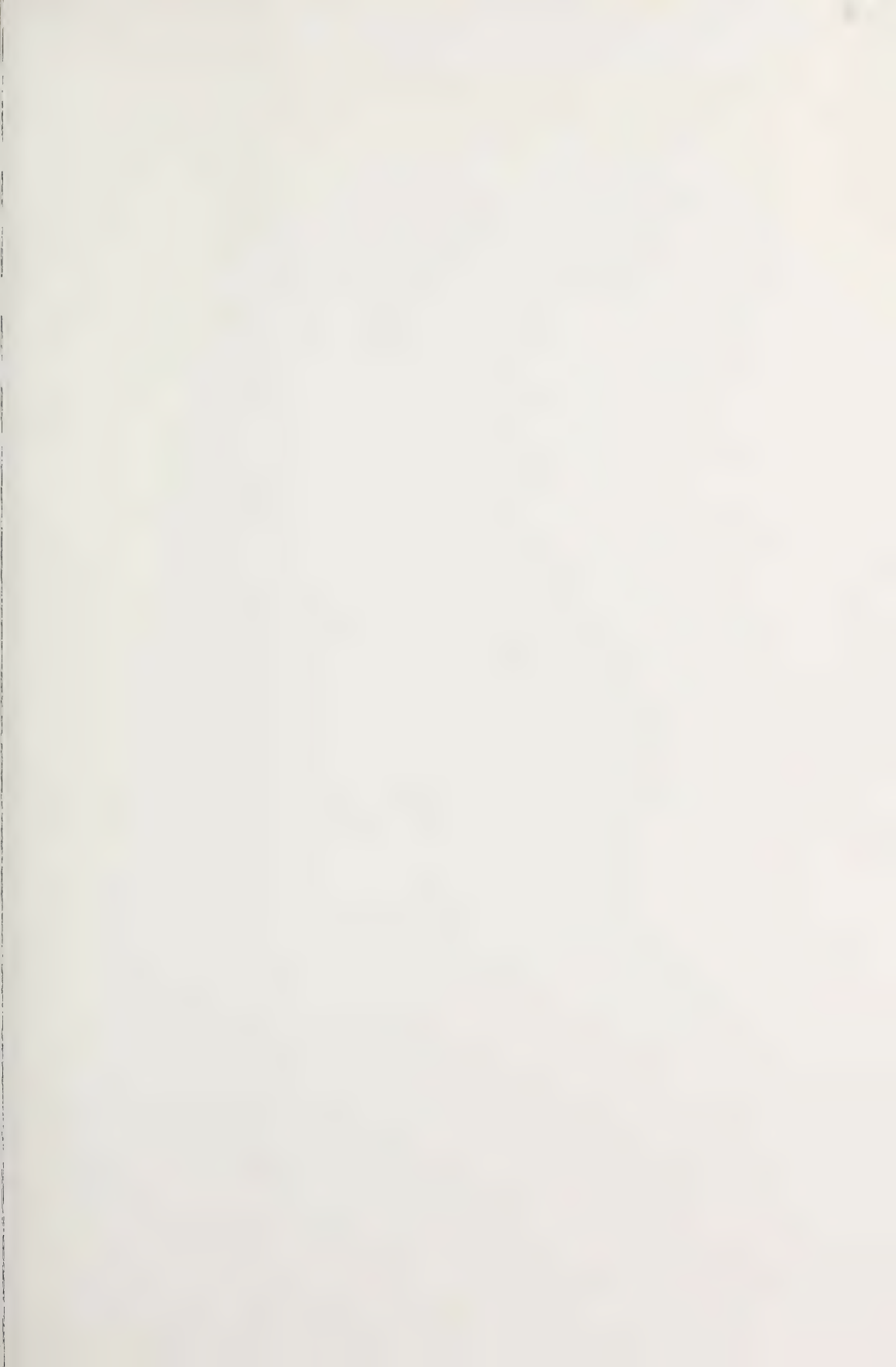
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HEC2 RELEASE DATED NOV 76 UPDATED MAY 1984
ERROR CORR - 01,02,03,04,05,06
MODIFICATION - 50,51,52,53,54,55,56
IBM-PC-XT VERSION AUGUST 1985
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[illegible]





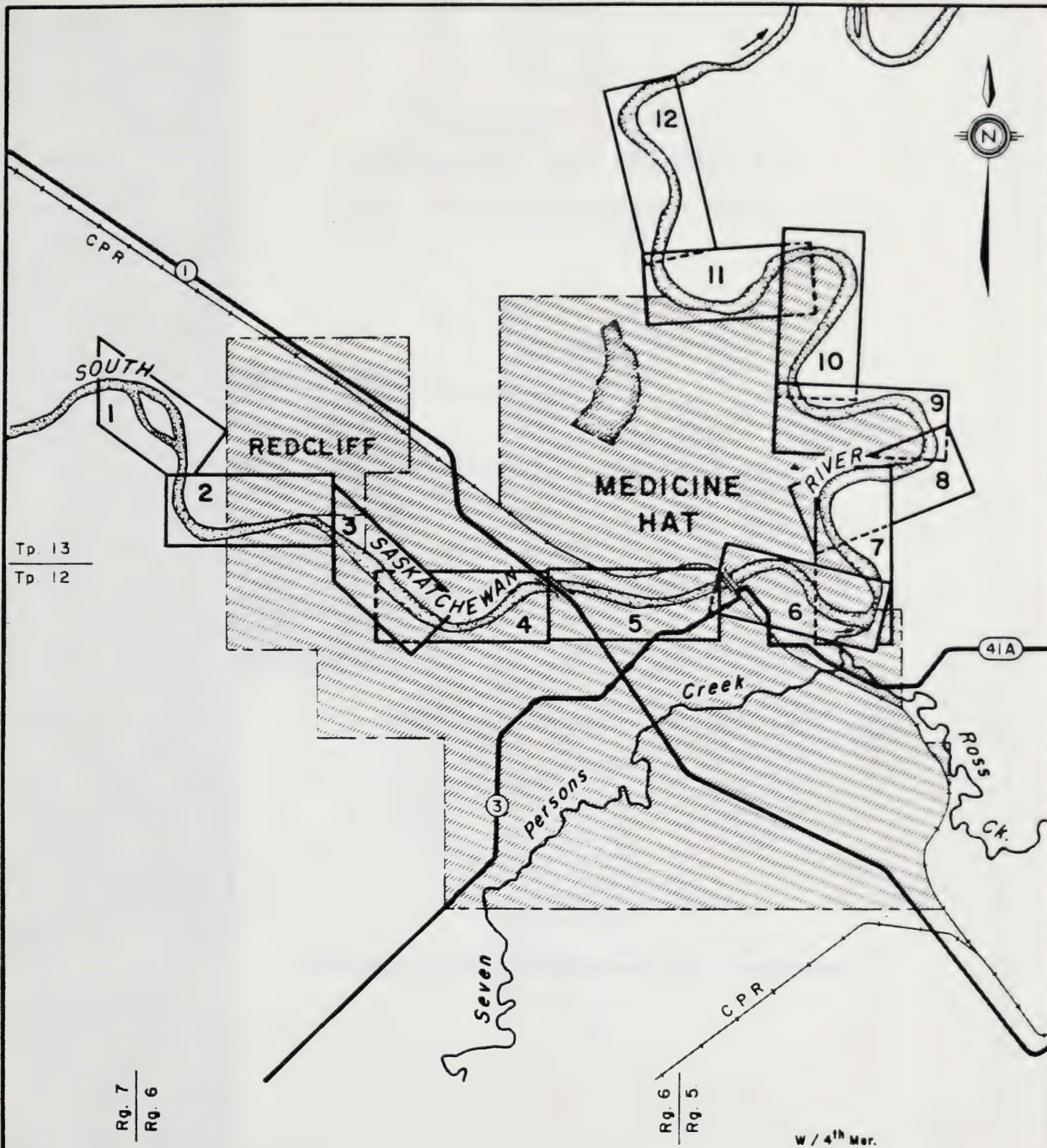




## **APPENDIX B**

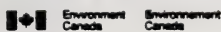
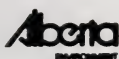
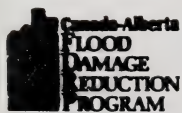
### **Flood Risk Maps - South Saskatchewan River**





SCALE 1:100 000

**MEDICINE HAT , ALBERTA  
INDEX PLAN  
FLOOD RISK MAPS  
SOUTH SASKATCHEWAN RIVER**







NOTE :

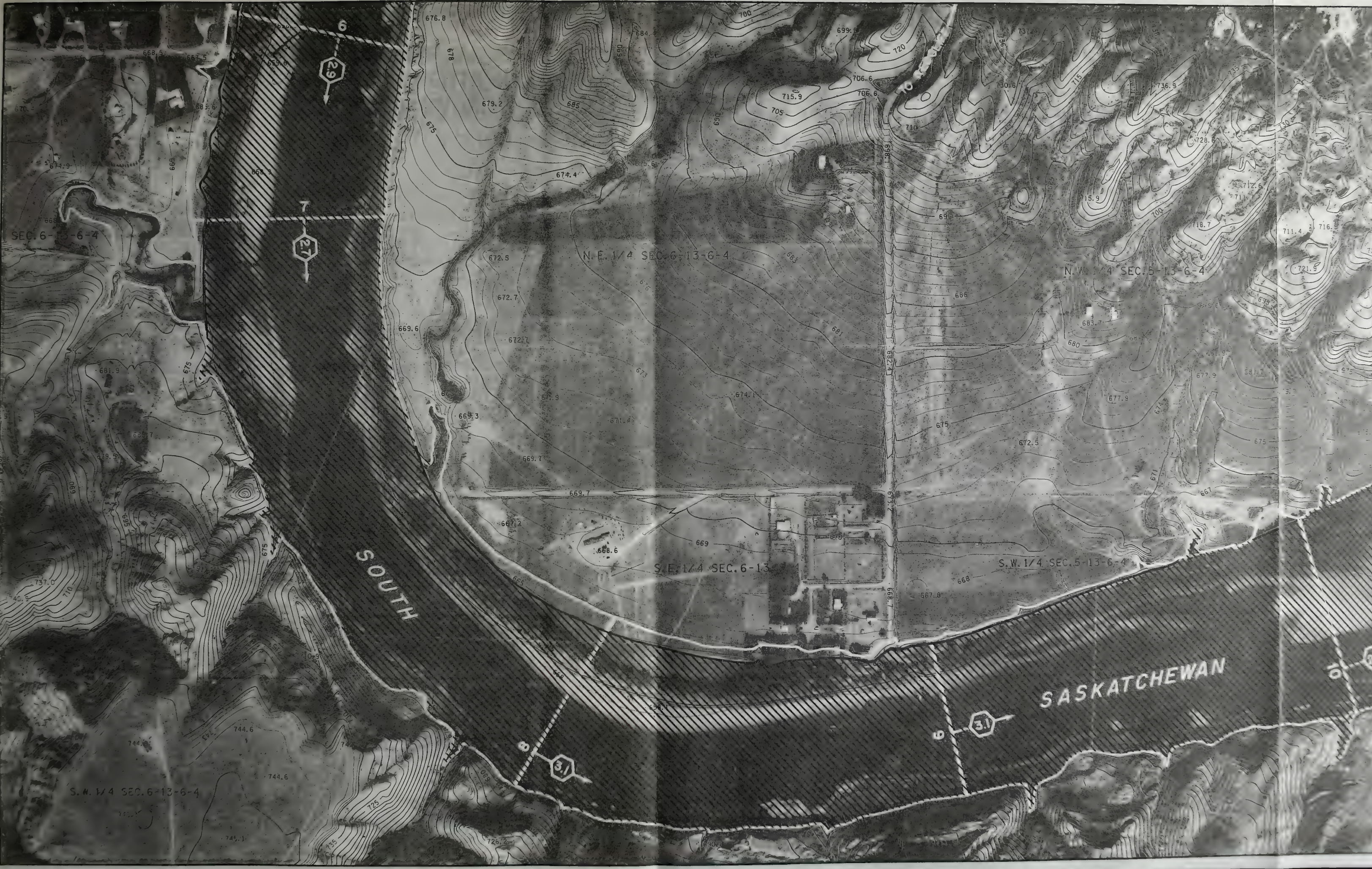
CROSS - SECTIONS 1 AND 2 ( not shown )  
ARE LOCATED APPROXIMATELY 1300 m  
AND 700 m UPSTREAM OF CROSS -  
SECTION 3.

MAPPING OF THIS AREA WAS NOT  
AVAILABLE AT THE TIME THIS STUDY  
WAS UNDERTAKEN .

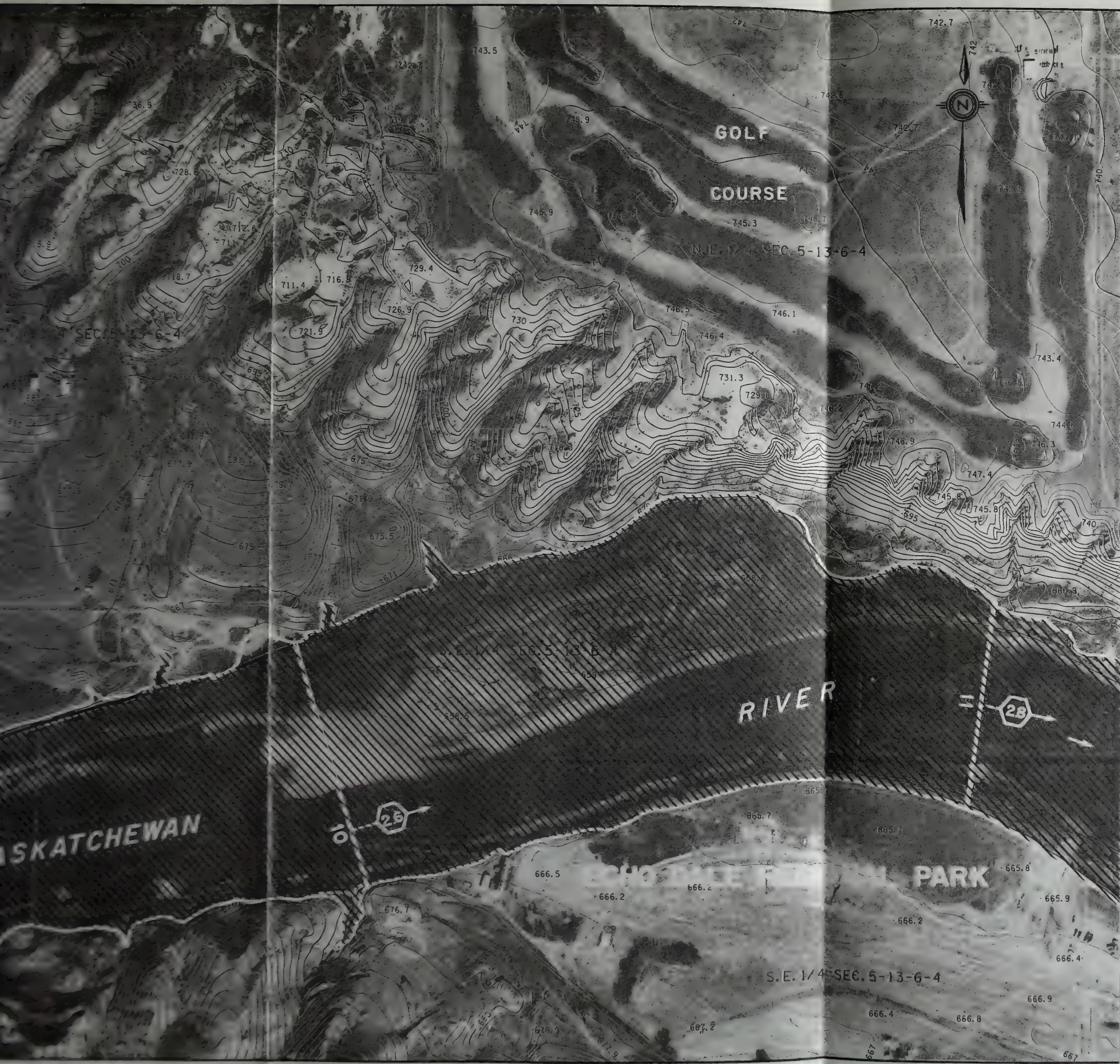






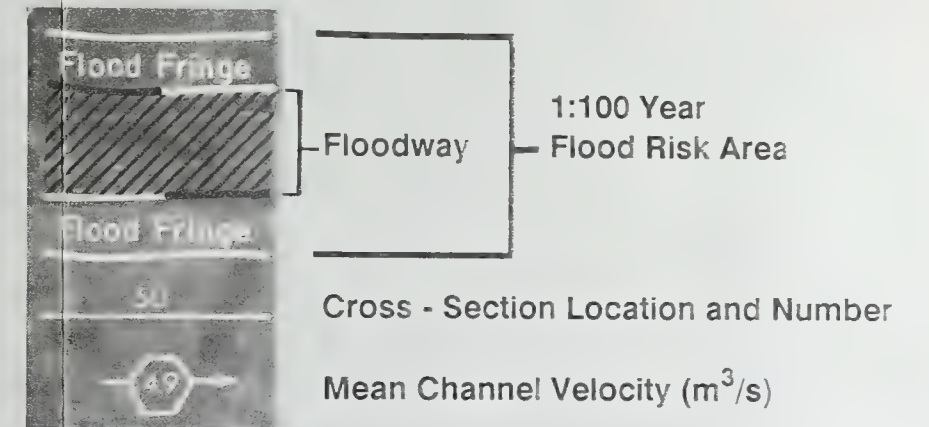






SHEET 2  
FLOOD RISK MAP  
MEDICINE HAT, ALBERTA  
( South Saskatchewan River )

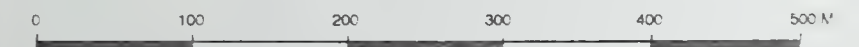
LEGEND



\*BASE MAPPING PRODUCED BY THE ALBERTA BUREAU OF SURVEYING AND MAPPING, 1964

ORTHOPHOTO SEPTEMBER, 1963  
CONTOUR INTERVAL 1.0 metre

SCALE 1 : 5 000



Canada-Alberta  
FLOOD  
DAMAGE  
REDUCTION  
PROGRAM

Alberta  
ENVIRONMENT



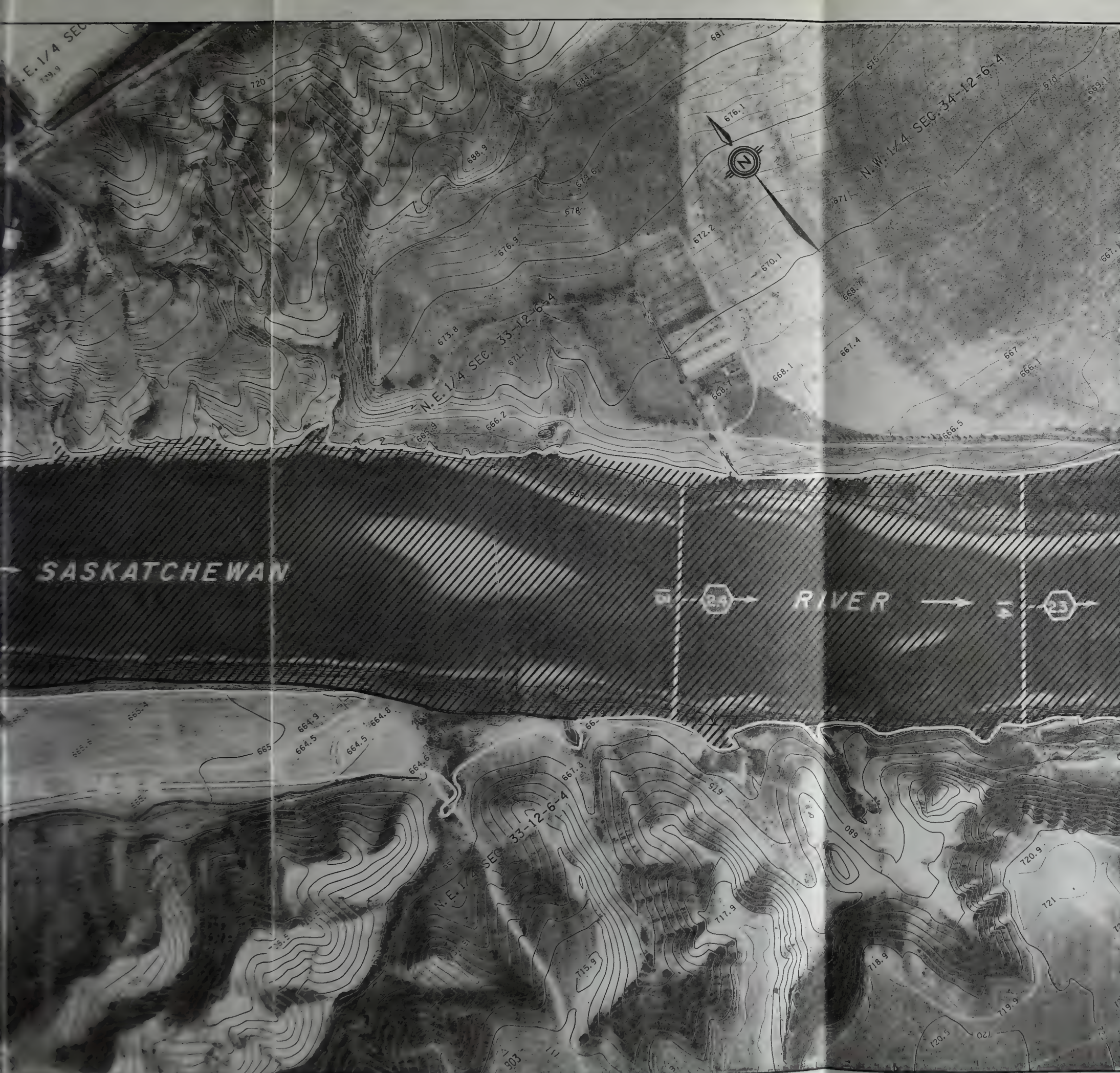
Environment  
Canada

Environnement  
Canada



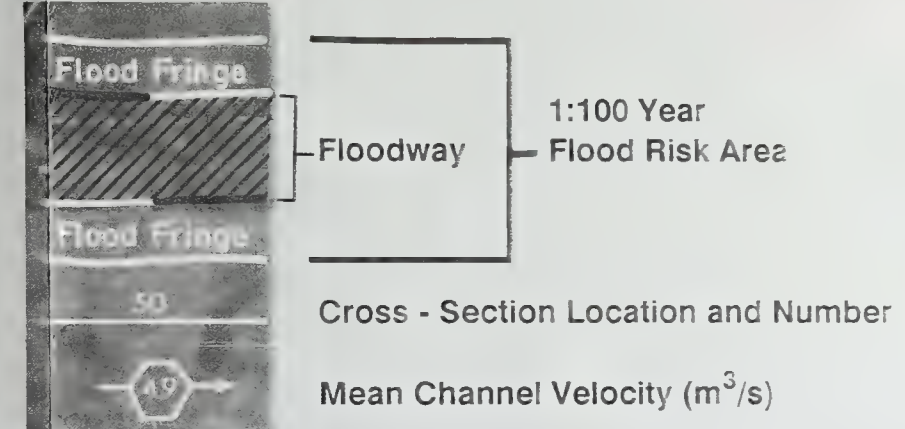






SHEET 3  
FLOOD RISK MAP  
MEDICINE HAT, ALBERTA  
( South Saskatchewan River )

LEGEND



\*BASE MAPPING PRODUCED BY THE ALBERTA BUREAU OF SURVEYING AND MAPPING 1984

ORTHOPHOTO SEPTEMBER, 1985  
CONTOUR INTERVAL 1.0 metre

SCALE 1 : 5 000



Canada-Alberta  
FLOOD  
DAMAGE  
REDUCTION  
PROGRAM

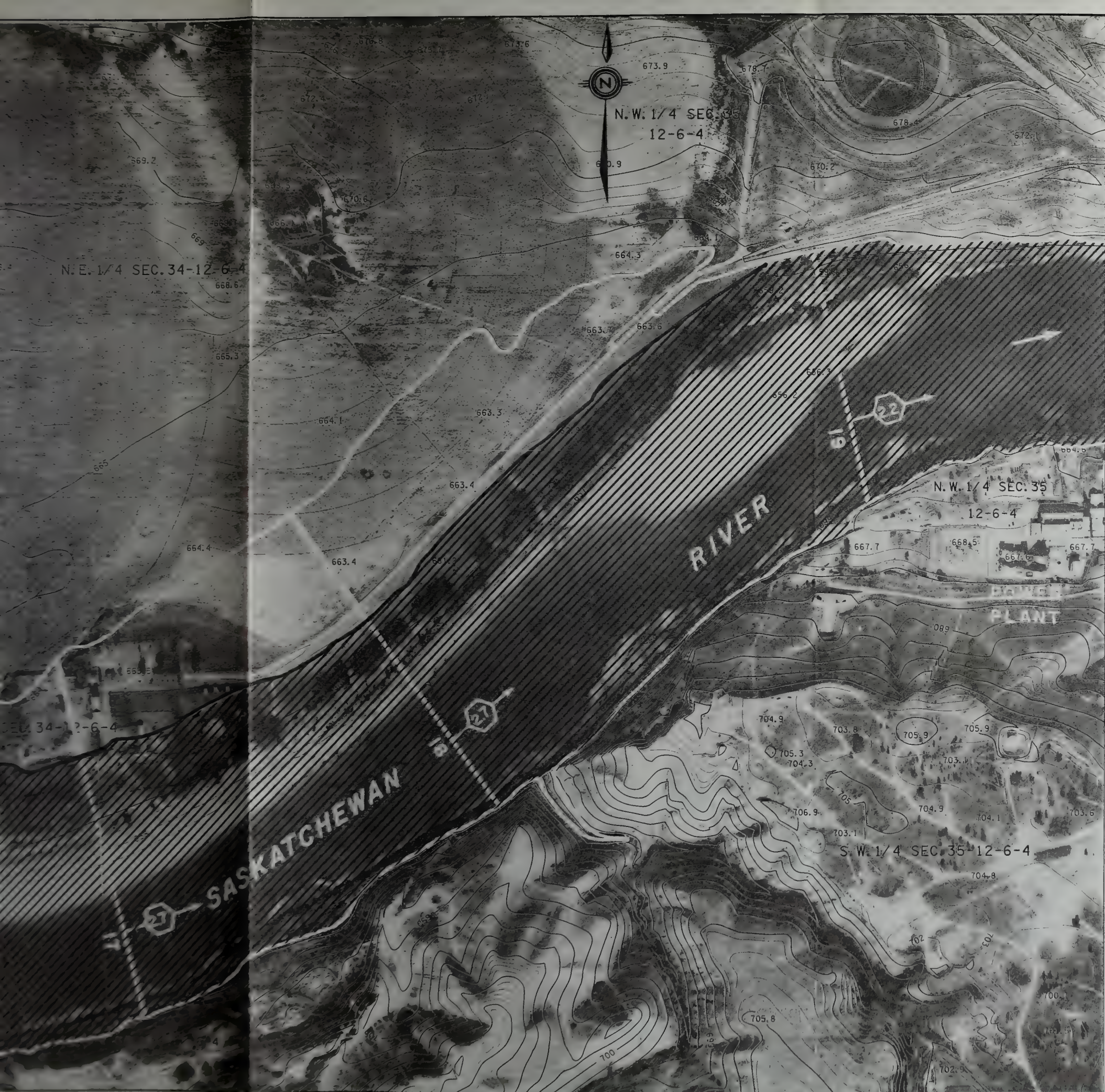
Alberta  
ENVIRONMENT

Environment Canada Environnement Canada









SHEET 4  
FLOOD RISK MAP  
MEDICINE HAT, ALBERTA  
( South Saskatchewan River )

LEGEND



1:100 Year  
Flood Risk Area

Cross - Section Location and Number

Mean Channel Velocity ( $m^3/s$ )

\*BASE MAPPING PRODUCED BY THE ALBERTA BUREAU OF SURVEYING AND MAPPING, 1984

ORTHOPHOTO SEPTEMBER, 1983  
CONTOUR INTERVAL 1.0 metre

SCALE 1 : 5 000



Canada-Alberta  
FLOOD  
DAMAGE  
REDUCTION  
PROGRAM

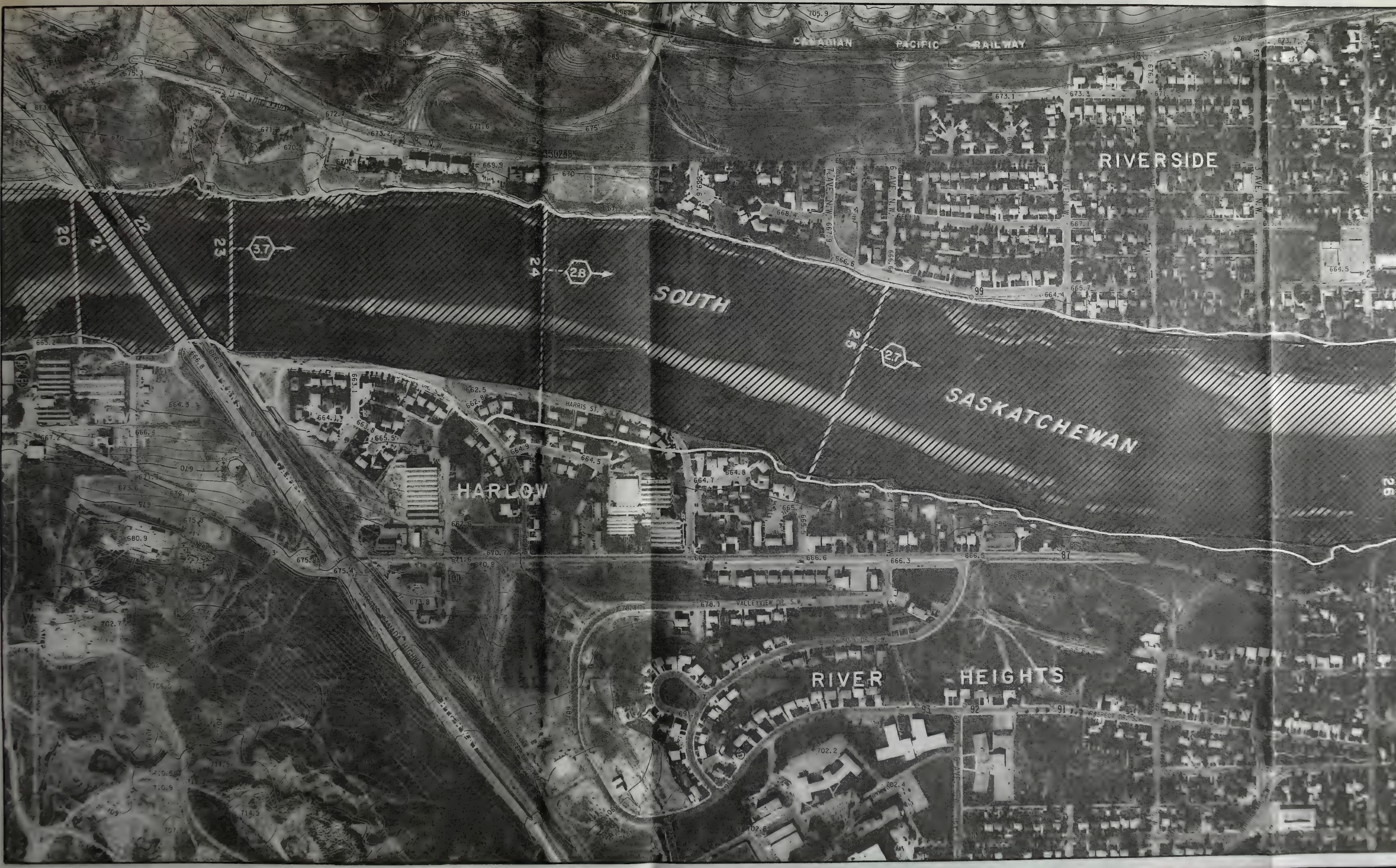
Alberta  
ENVIRONMENT



Environment  
Canada

Environnement  
Canada

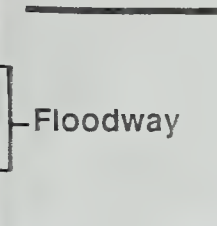
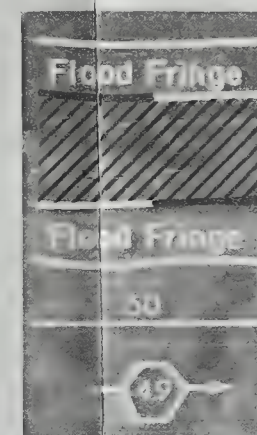






# SHEET 5 FLOOD RISK MAP MEDICINE HAT, ALBERTA ( South Saskatchewan River )

## LEGEND



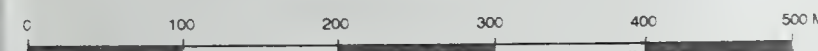
Cross - Section Location and Number

Mean Channel Velocity (m<sup>3</sup>/s)

\*BASE MAPPING PRODUCED BY THE ALBERTA BUREAU OF SURVEYING AND MAPPING, 1984

ORTHOPHOTO SEPTEMBER, 1983  
CONTOUR INTERVAL 1.0 metre

SCALE 1 : 5 000



Canada-Alberta  
FLOOD  
DAMAGE  
REDUCTION  
PROGRAM

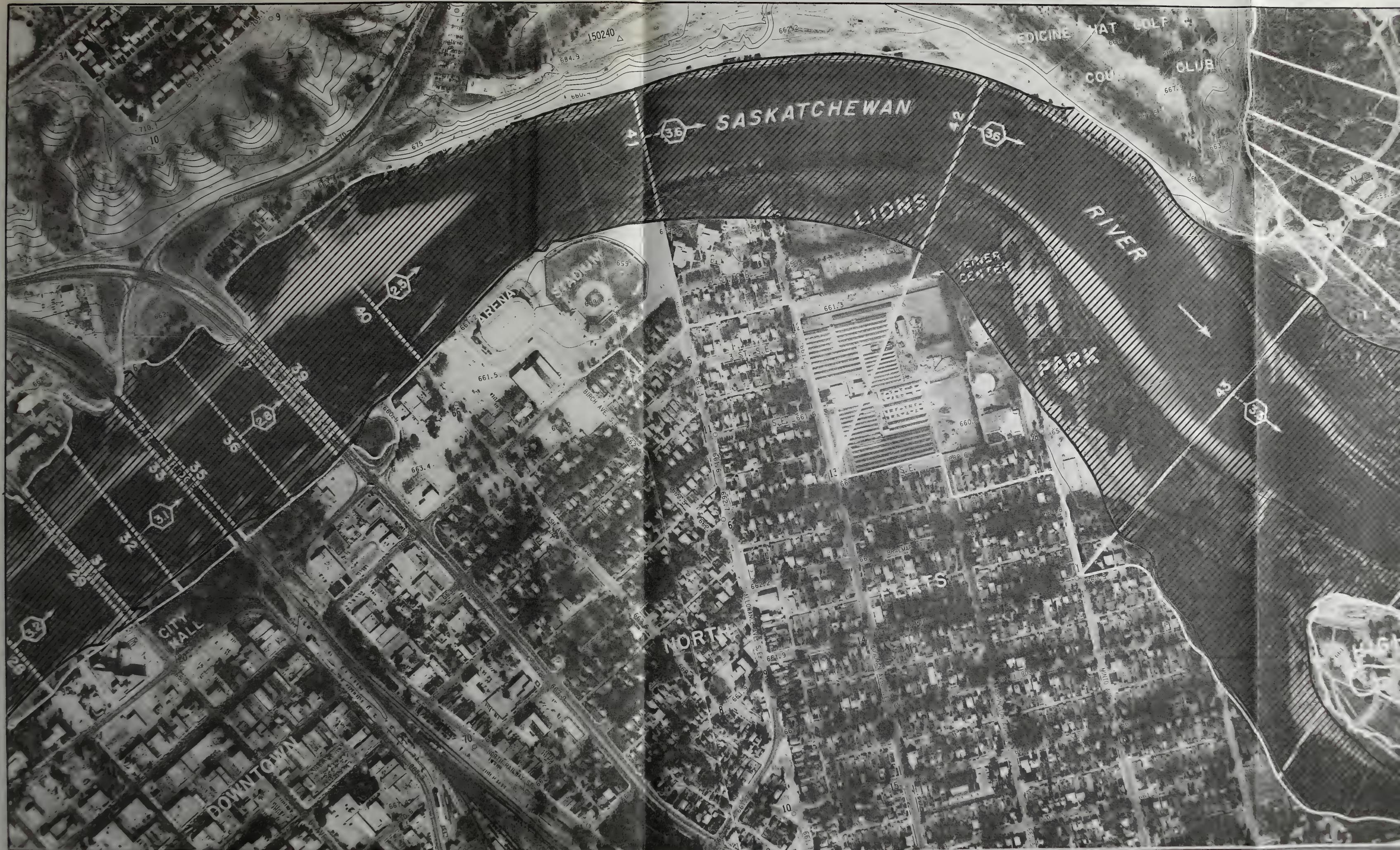
Alberta  
ENVIRONMENT



Environment  
Canada

Environnement  
Canada



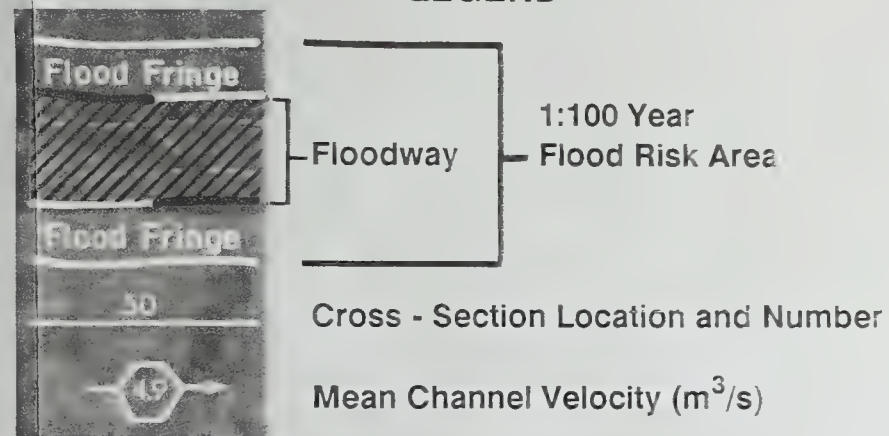






# SHEET 6 FLOOD RISK MAP MEDICINE HAT, ALBERTA ( South Saskatchewan River )

## LEGEND



\*BASE MAPPING PRODUCED BY THE ALBERTA BUREAU OF SURVEYING AND MAPPING, 1984

ORTHOPHOTO SEPTEMBER, 1983  
CONTOUR INTERVAL 1.0 metre

SCALE 1 : 5 000



Canada-Alberta  
FLOOD  
DAMAGE  
REDUCTION  
PROGRAM

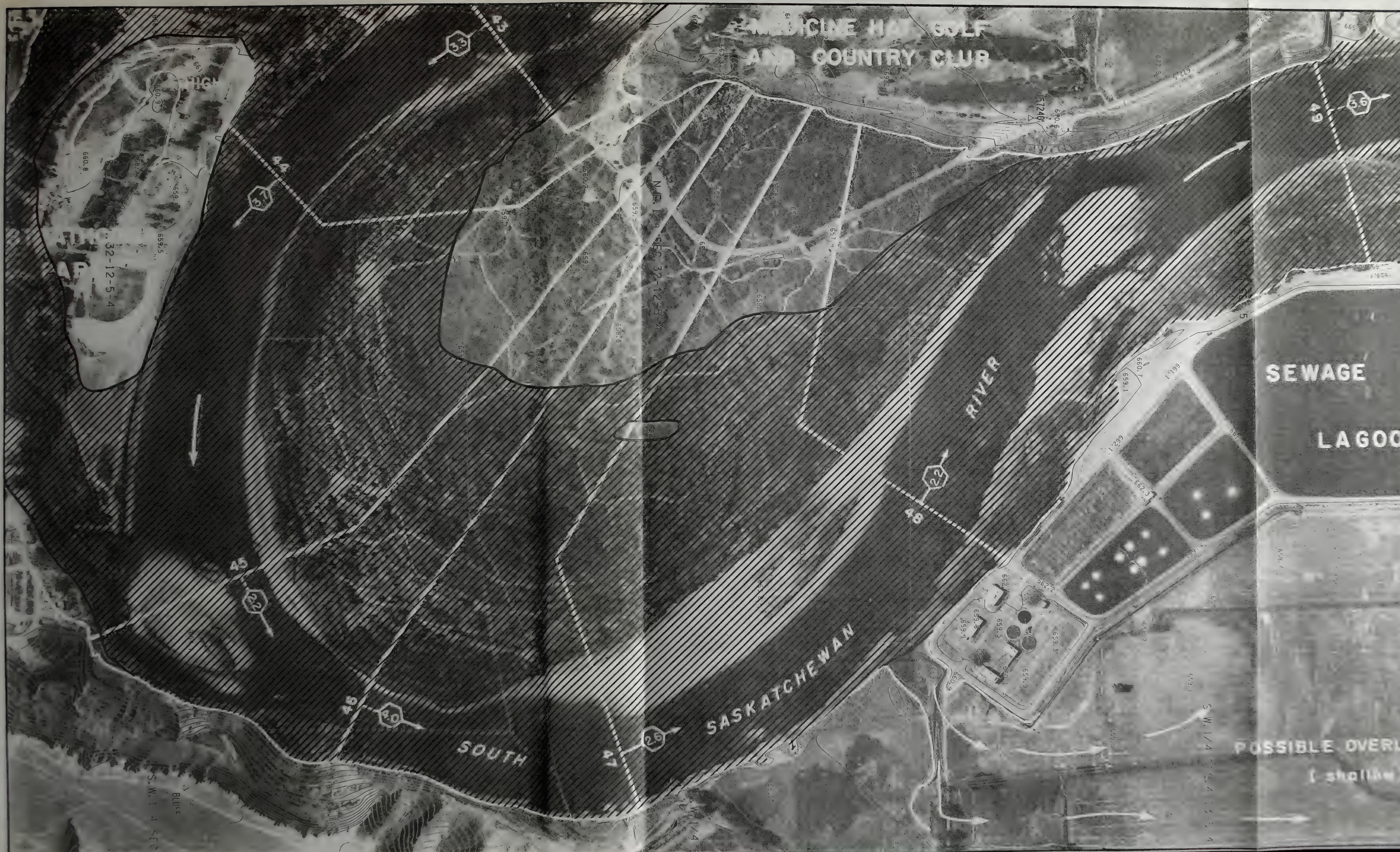
Alberta  
ENVIRONMENT



Environment  
Canada

Environnement  
Canada

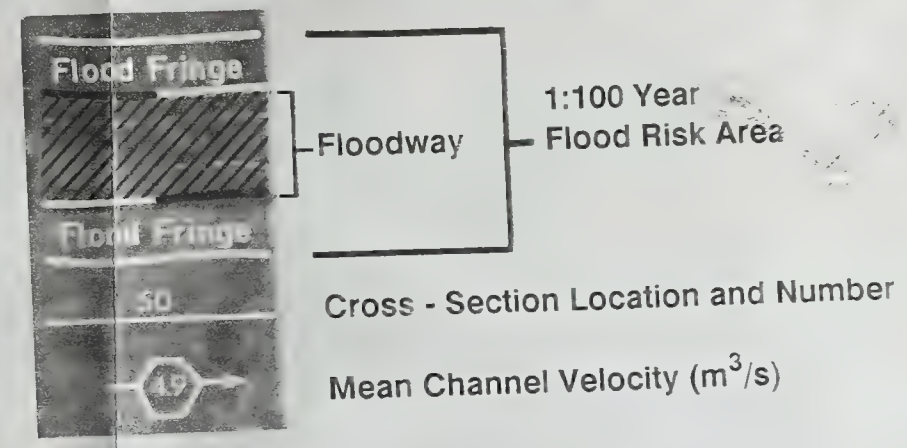






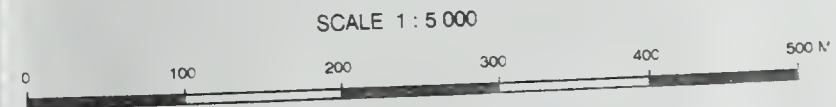
# SHEET 7 FLOOD RISK MAP MEDICINE HAT, ALBERTA ( South Saskatchewan River )

## LEGEND



\*BASE MAPPING PRODUCED BY THE ALBERTA BUREAU OF SURVEYING AND MAPPING, 1964

ORTHOPHOTO      SEPTEMBER, 1983  
CONTOUR INTERVAL      1.0 metre



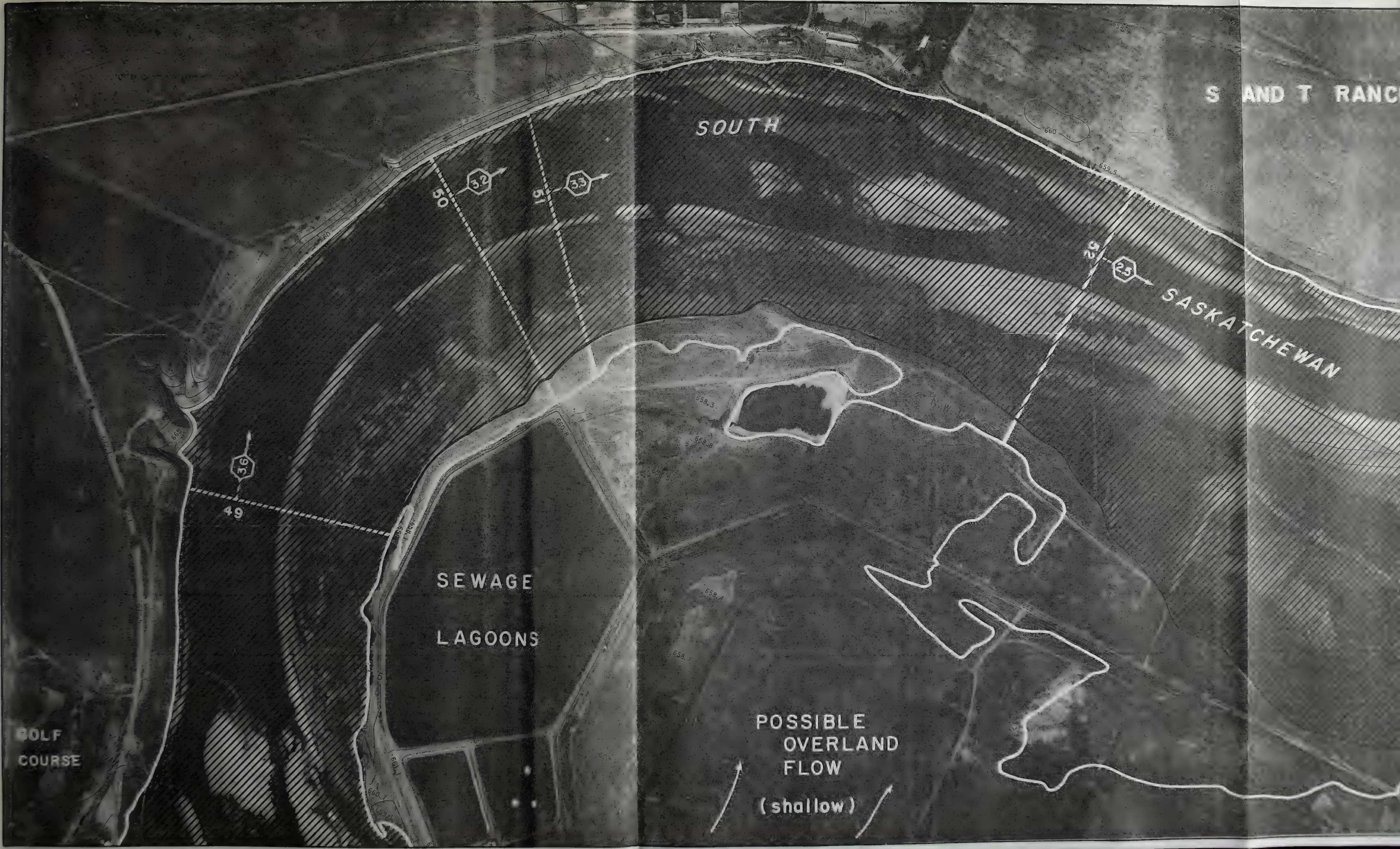
Canada-Alberta  
**FLOOD  
DAMAGE  
REDUCTION  
PROGRAM**

**Alberta**  
ENVIRONMENT

Environment Canada      Environnement Canada







S AND T RANC

SOUTH

SASKATCHEWAN

SEWAGE  
LAGOONS

POSSIBLE  
OVERLAND  
FLOW  
(shallow)

GOLF  
COURSE

32

33

25

36

49

660

659.5

658.3

658.8

658.7

658.1

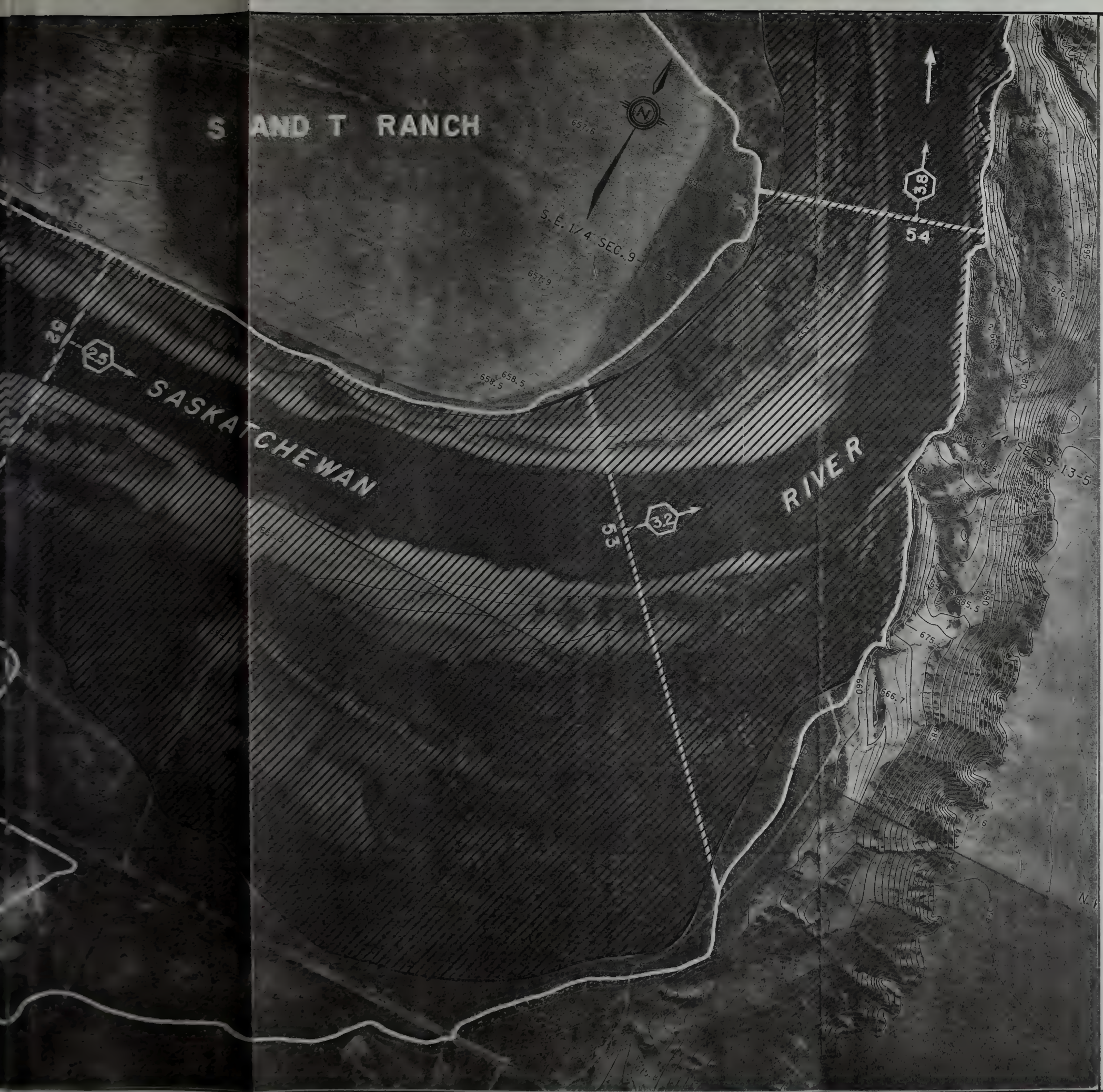
660.7

660.9

660.1

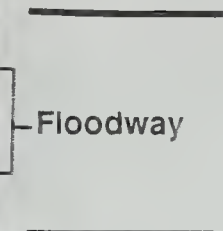
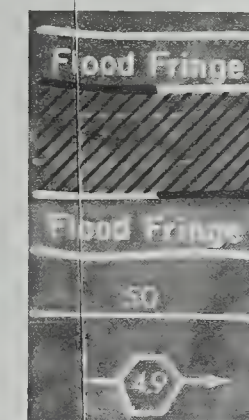
659.4





SHEET 8  
FLOOD RISK MAP  
MEDICINE HAT, ALBERTA  
( South Saskatchewan River )

LEGEND



1:100 Year  
Flood Risk Area

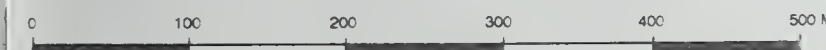
Cross - Section Location and Number

Mean Channel Velocity ( $m^3/s$ )

\*BASE MAPPING PRODUCED BY THE ALBERTA BUREAU OF SURVEYING AND MAPPING, 1984

ORTHOPHOTO SEPTEMBER, 1983  
CONTOUR INTERVAL 1.0 metre

SCALE 1 : 5 000



Canada-Alberta  
FLOOD  
DAMAGE  
REDUCTION  
PROGRAM

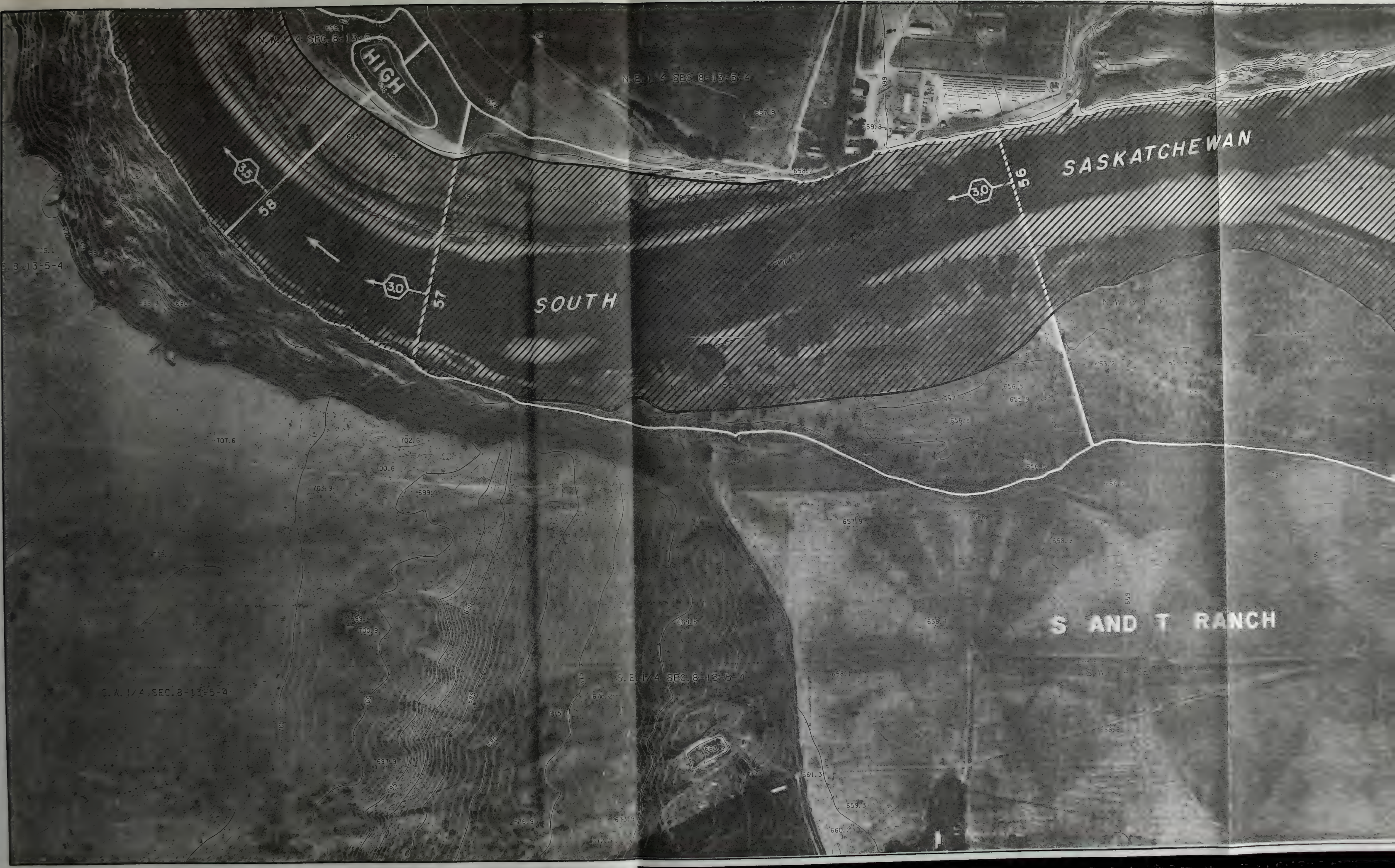
Alberta  
ENVIRONMENT



Environment  
Canada

Environnement  
Canada









# SHEET 9 FLOOD RISK MAP MEDICINE HAT, ALBERTA ( South Saskatchewan River )

**LEGEND**

Flood Fringe

50

49

Floodway

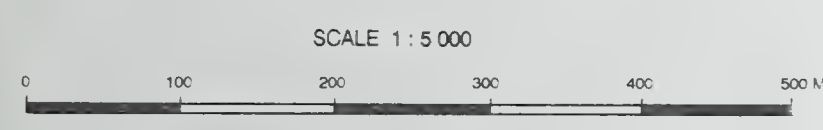
1:100 Year  
Flood Risk Area

Cross - Section Location and Number

Mean Channel Velocity (m<sup>3</sup>/s)

\*BASE MAPPING PRODUCED BY THE ALBERTA BUREAU OF SURVEYING AND MAPPING, 1984

ORTHOPHOTO      SEPTEMBER, 1983  
CONTOUR INTERVAL      1.0 metre



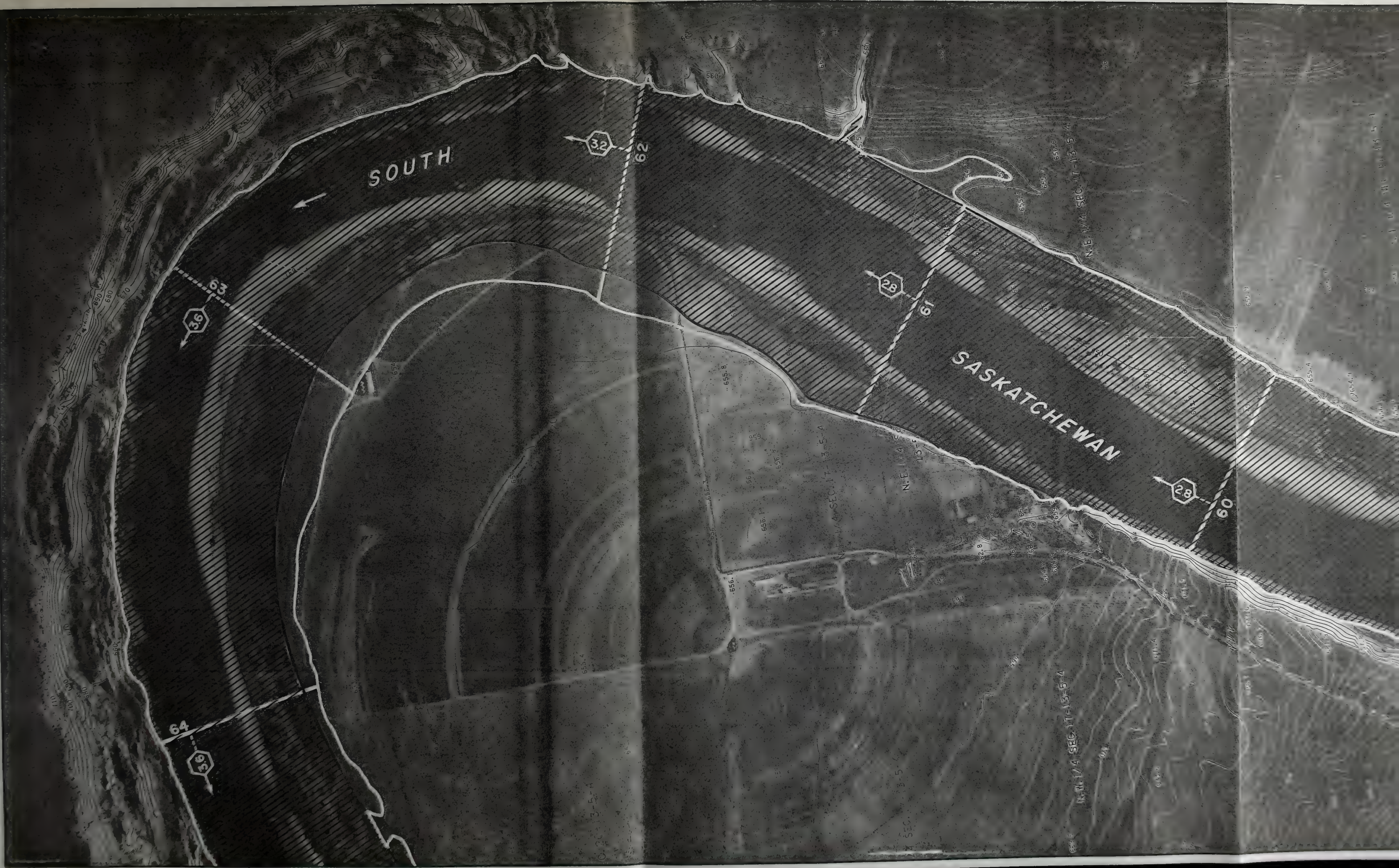
Canada-Alberta  
**FLOOD  
DAMAGE  
REDUCTION  
PROGRAM**

**Alberta**  
ENVIRONMENT

Environment  
Canada

Environnement  
Canada









SHEET 10  
FLOOD RISK MAP  
MEDICINE HAT, ALBERTA  
( South Saskatchewan River )

LEGEND



1:100 Year  
Flood Risk Area

Cross - Section Location and Number

Mean Channel Velocity ( $\text{m}^3/\text{s}$ )

\*BASE MAPPING PRODUCED BY THE ALBERTA BUREAU OF SURVEYING AND MAPPING, 1984

ORTHOPHOTO SEPTEMBER, 1983  
CONTOUR INTERVAL 1.0 metre

SCALE 1 : 5 000



Canada-Alberta  
FLOOD  
DAMAGE  
REDUCTION  
PROGRAM

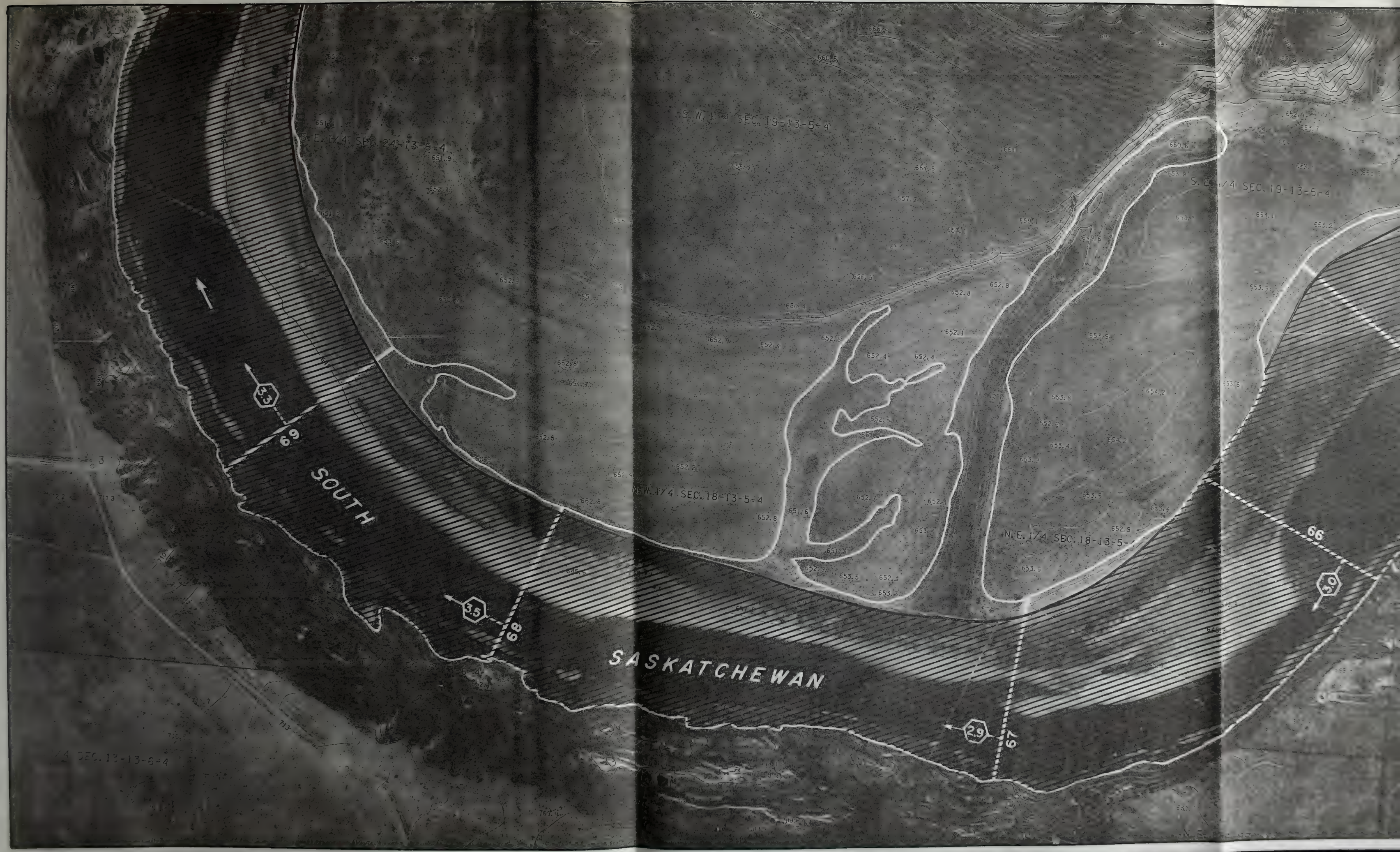
Alberta  
ENVIRONMENT



Environment  
Canada

Environnement  
Canada

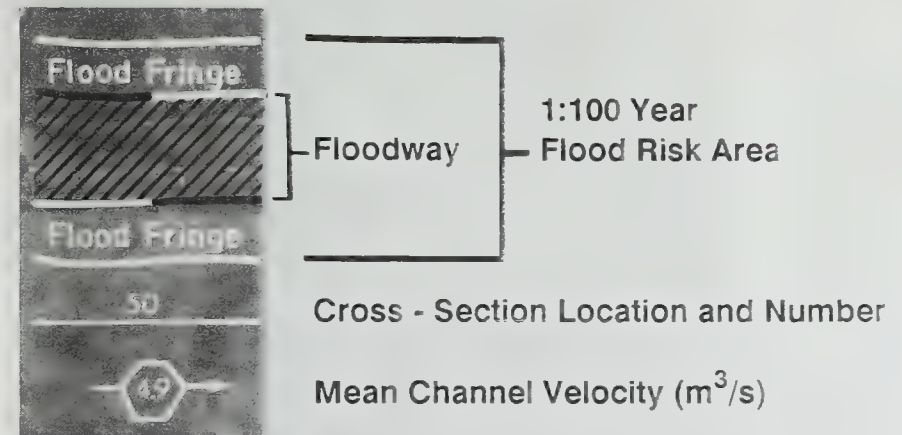






# SHEET II FLOOD RISK MAP MEDICINE HAT, ALBERTA ( South Saskatchewan River )

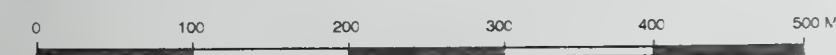
## LEGEND



\*BASE MAPPING PRODUCED BY THE ALBERTA BUREAU OF SURVEYING AND MAPPING, 1964

ORTHOPHOTO SEPTEMBER, 1983  
CONTOUR INTERVAL 1.0 metre

SCALE 1 : 5 000



Canada-Alberta  
**FLOOD  
DAMAGE  
REDUCTION  
PROGRAM**

**Alberta**  
ENVIRONMENT

Environment  
Canada

Environnement  
Canada

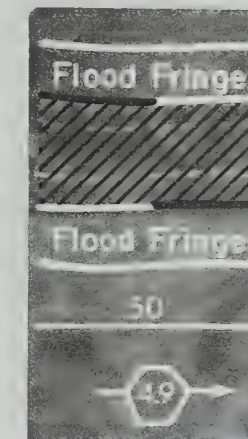






SHEET 12  
FLOOD RISK MAP  
MEDICINE HAT, ALBERTA  
( South Saskatchewan River )

LEGEND



1:100 Year  
Flood Risk Area

Cross - Section Location and Number

Mean Channel Velocity (m³/s)

\*BASE MAPPING PRODUCED BY THE ALBERTA BUREAU OF SURVEYING AND MAPPING, 1964

ORTHOPHOTO SEPTEMBER, 1983  
CONTOUR INTERVAL 1.0 metre

SCALE 1 : 5 000



Canada-Alberta  
FLOOD  
DAMAGE  
REDUCTION  
PROGRAM

Alberta  
ENVIRONMENT



Environment  
Canada

Environnement  
Canada









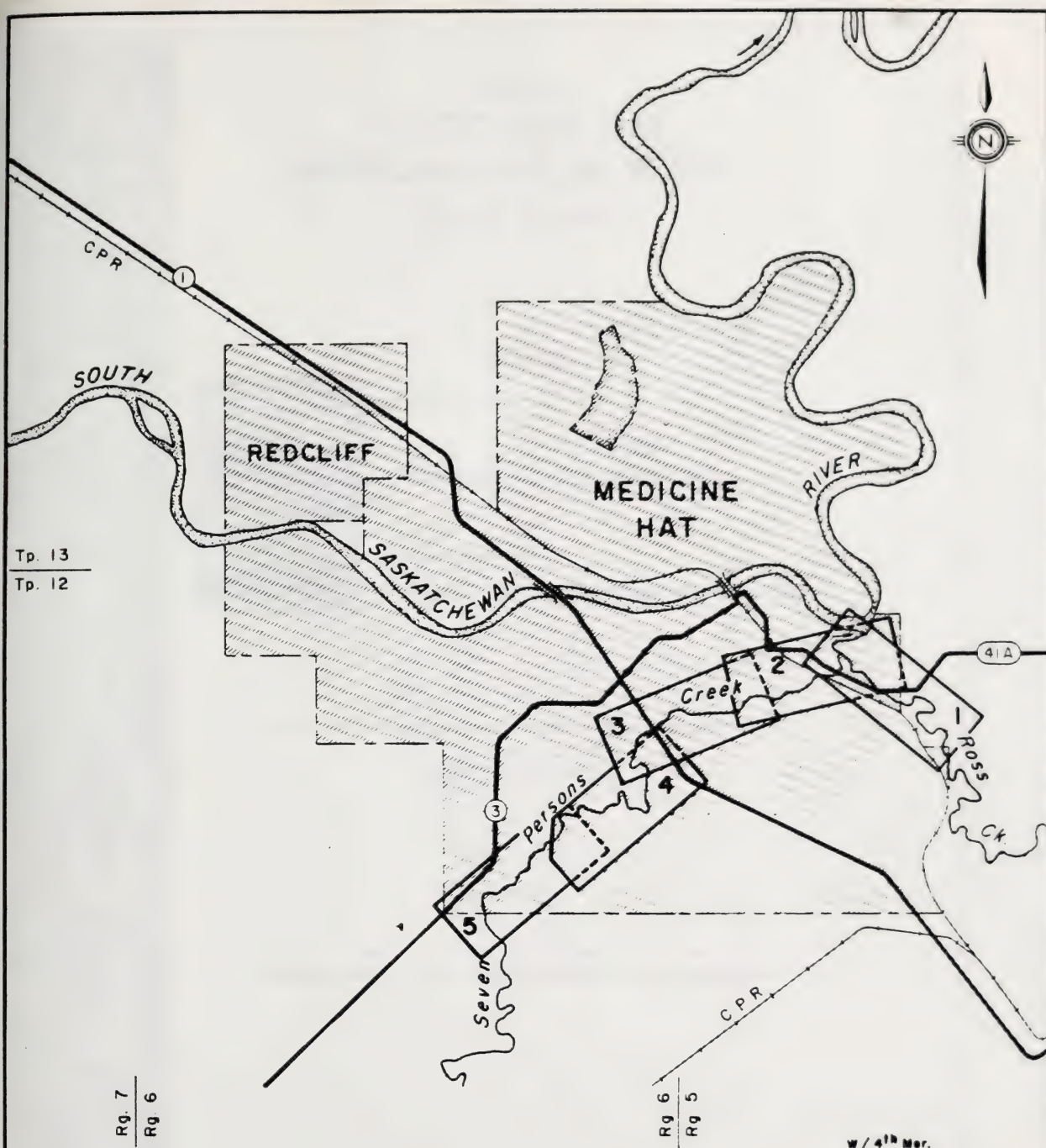


## **APPENDIX C**

### **Flood Risk Maps - Ross Creek and Seven Persons Creek**







SCALE 1:100 000

**MEDICINE HAT, ALBERTA  
INDEX PLAN  
FLOOD RISK MAPS  
ROSS CREEK AND SEVEN PERSONS CREEK**



POLICE  
POINT  
PARK

SOUTH SASKATCHEWAN  
RIVER

PARK

OVERFLOW  
CHANNEL

SOUTH

HENDERSON  
TRUCKS

HORNE AND  
FITZGERALD  
FARM

ALPHA

SEVEN PERS.

FLATS

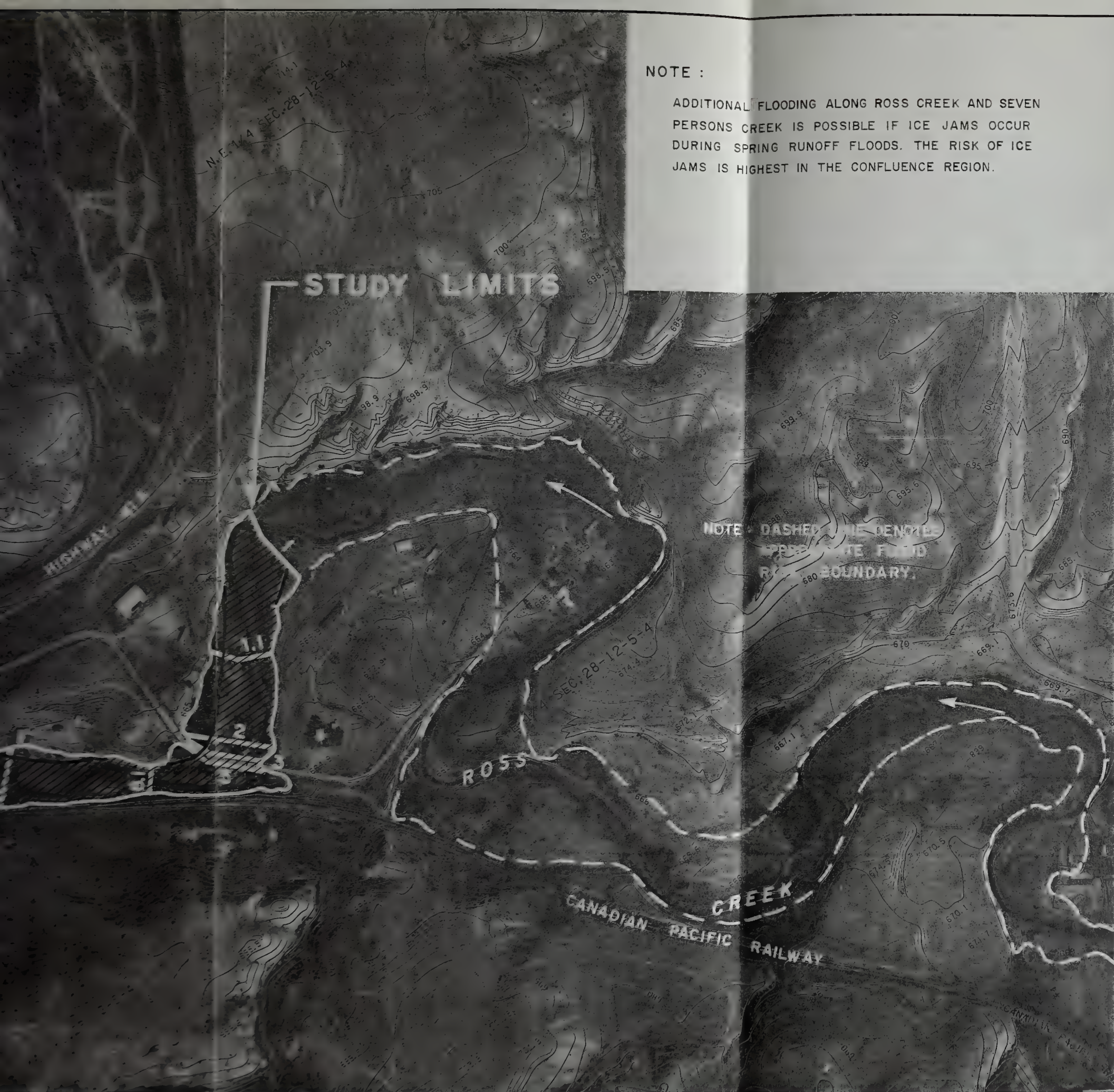
PURMAL  
SUBDIVISION

BURNCO ROCK  
COLLECTS

STUDY LA





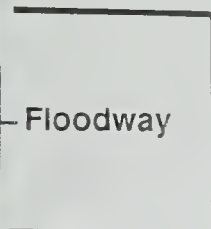


**NOTE :**

ADDITIONAL FLOODING ALONG ROSS CREEK AND SEVEN PERSONS CREEK IS POSSIBLE IF ICE JAMS OCCUR DURING SPRING RUNOFF FLOODS. THE RISK OF ICE JAMS IS HIGHEST IN THE CONFLUENCE REGION.

# SHEET I FLOOD RISK MAP MEDICINE HAT, ALBERTA ( Ross Creek )

**LEGEND**



1:100 Year  
Flood Risk Area

Cross - Section Location and Number

\*BASE MAPPING PRODUCED BY THE ALBERTA BUREAU OF SURVEYING AND MAPPING, 1984

ORTHOPHOTO SEPTEMBER, 1983  
CONTOUR INTERVAL 1.0 metre

SCALE 1 : 5 000



**Canada-Alberta  
FLOOD  
DAMAGE  
REDUCTION  
PROGRAM**

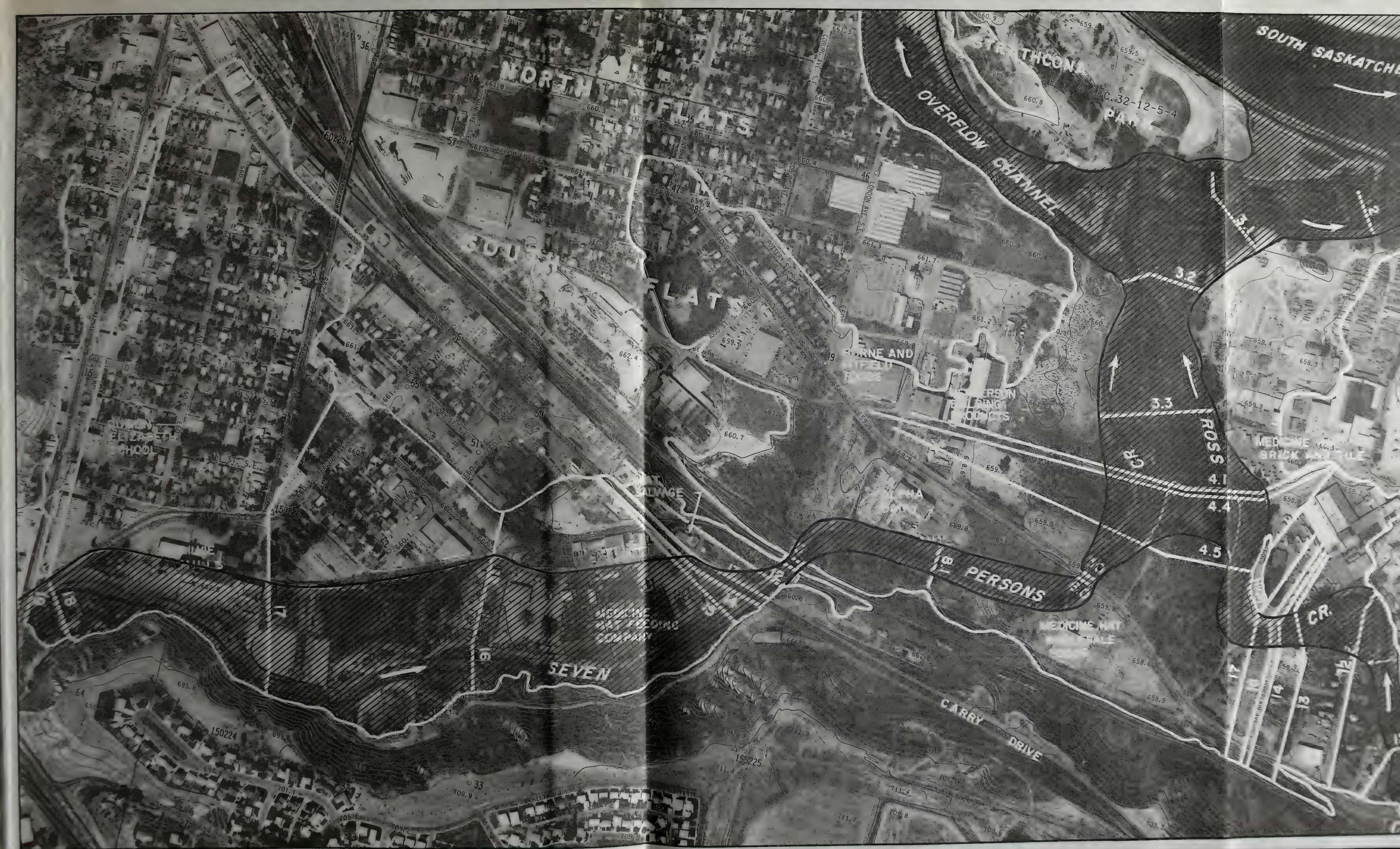
**Alberta**  
ENVIRONMENT



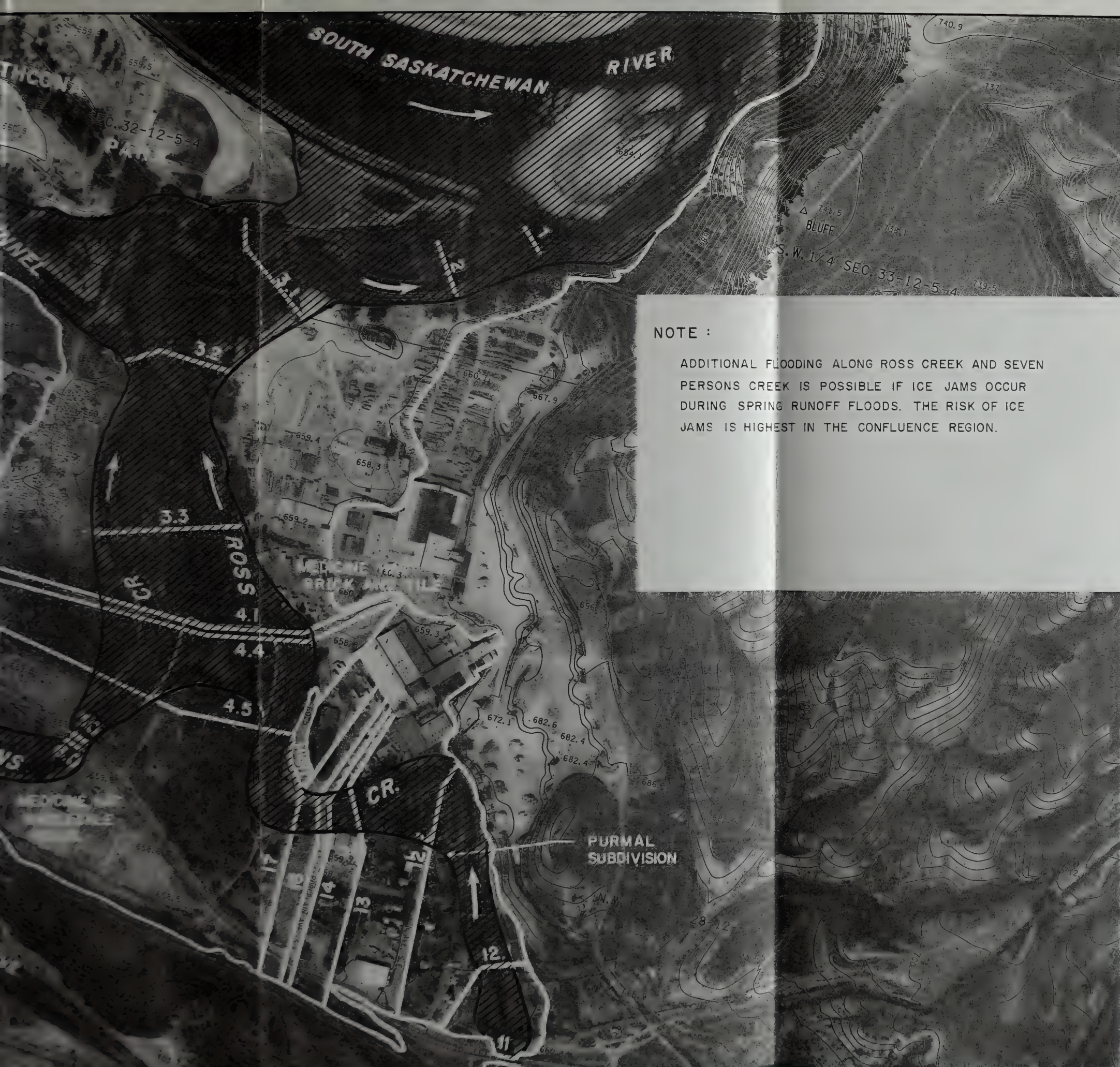
Environment  
Canada

Environnement  
Canada



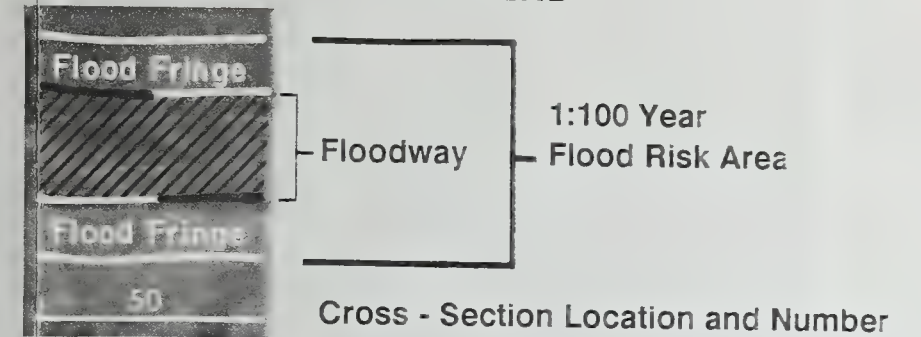






# SHEET 2 FLOOD RISK MAP MEDICINE HAT, ALBERTA ( Seven Persons Creek )

## LEGEND



\*BASE MAPPING PRODUCED BY THE ALBERTA BUREAU OF SURVEYING AND MAPPING, 1984

ORTHOPHOTO SEPTEMBER, 1983  
CONTOUR INTERVAL 1.0 metre

SCALE 1 : 5 000



Canada-Alberta  
FLOOD  
DAMAGE  
REDUCTION  
PROGRAM

Alberta  
ENVIRONMENT



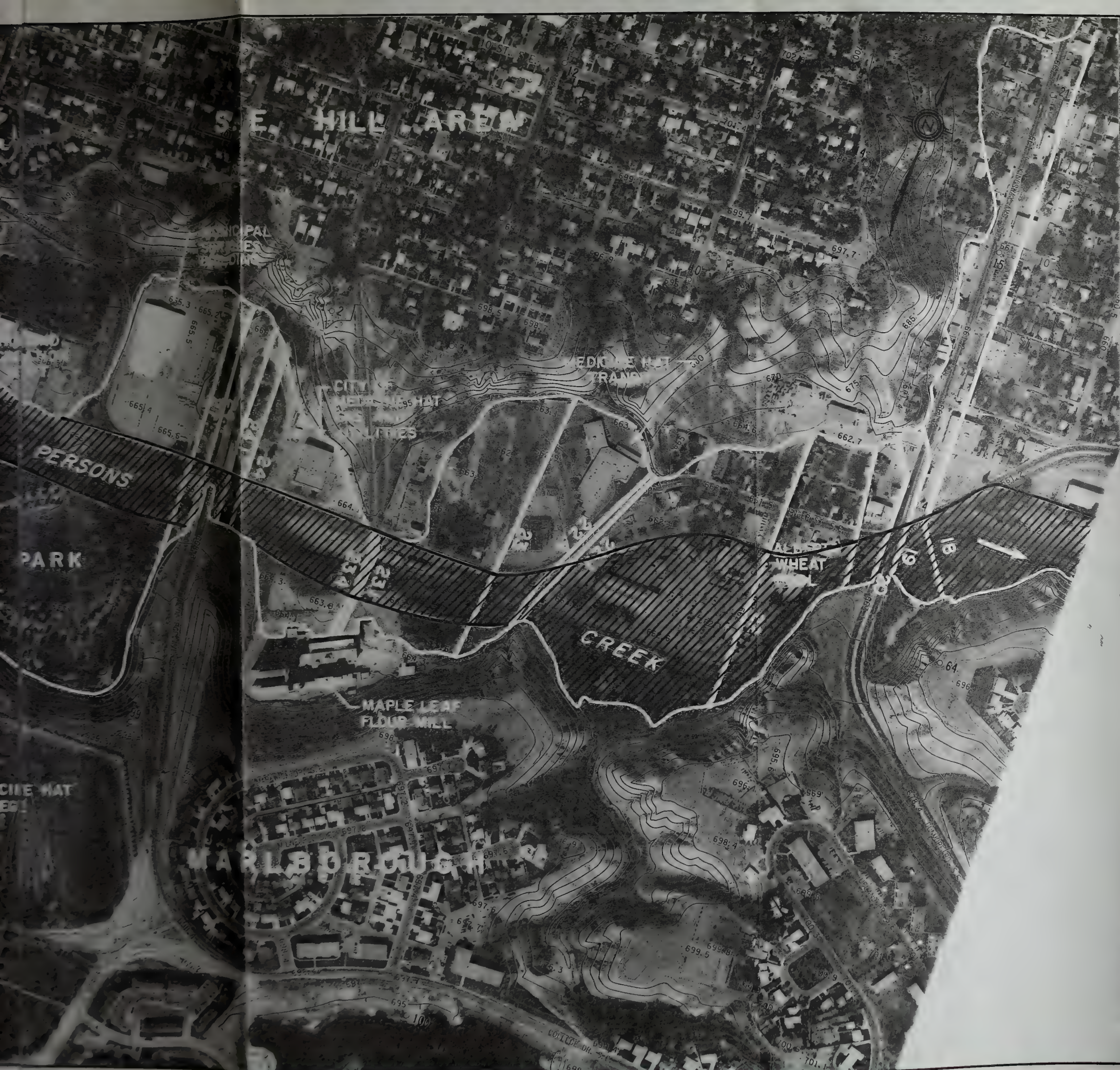
Environment  
Canada

Environnement  
Canada



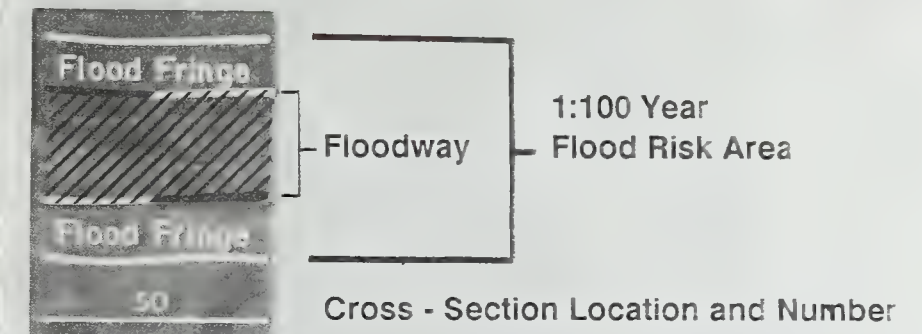






SHEET 3  
FLOOD RISK MAP  
MEDICINE HAT, ALBERTA  
( Seven Persons Creek )

LEGEND



\*BASE MAPPING PRODUCED BY THE ALBERTA BUREAU OF SURVEYING AND MAPPING, 198-

ORTHOPHOTO      SEPTEMBER, 1983  
CONTOUR INTERVAL      1.0 metre

SCALE 1 : 5 000



Canada-Alberta  
FLOOD  
DAMAGE  
REDUCTION  
PROGRAM

Alberta  
ENVIRONMENT



Environment  
Canada

Environnement  
Canada



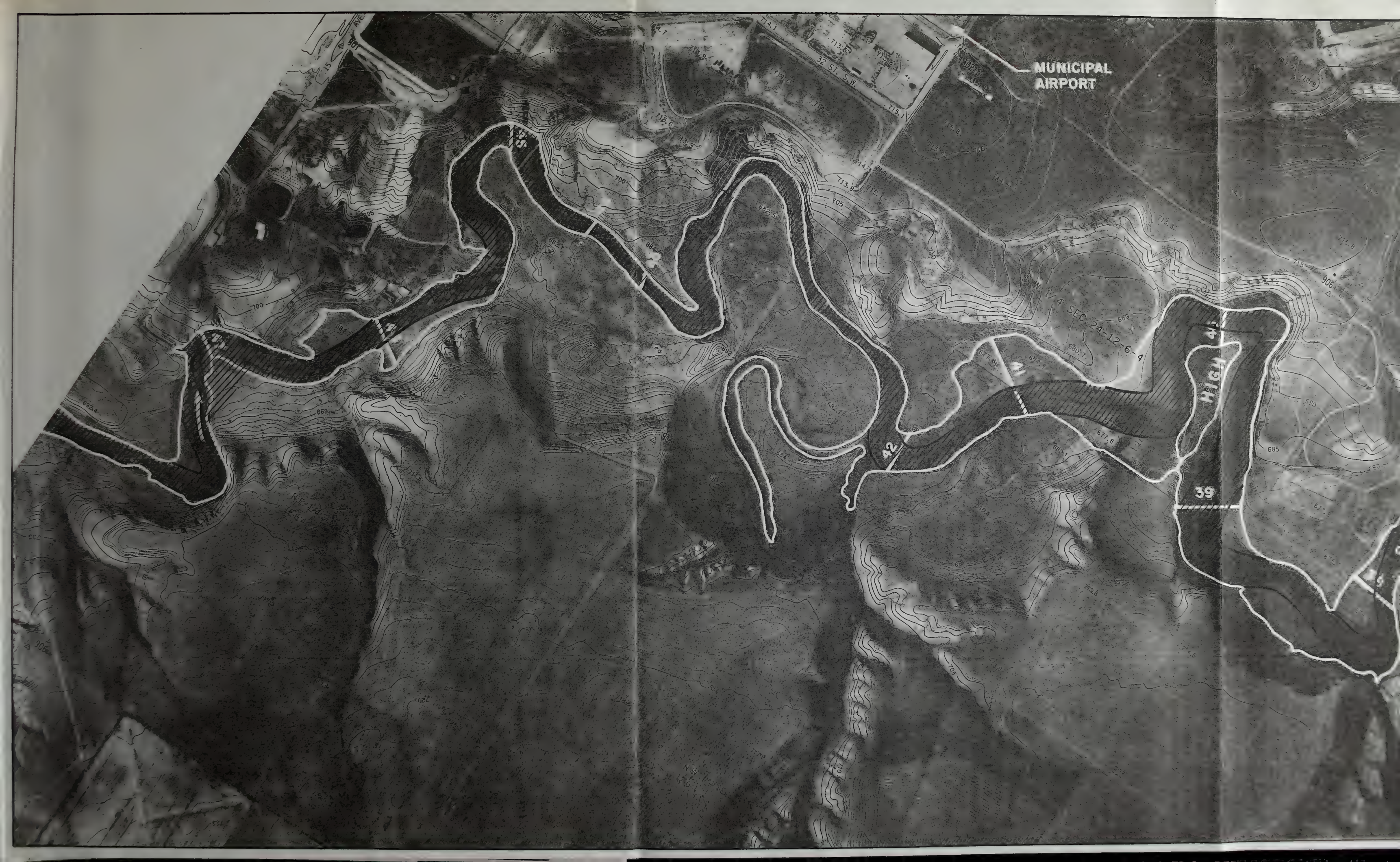
MUNICIPAL  
AIRPORT

SEC 24-12-6-4

High 41

39

42





MUNICIPAL  
PORT

CREEK

SEC 24-12-6

HIGH 41

SEVEN  
PERSONS

39

SEVEN

SOUTHRIDGE

SHEET 4  
FLOOD RISK MAP  
MEDICINE HAT, ALBERTA  
( Seven Persons Creek )

LEGEND



1:100 Year  
Flood Risk Area

Cross - Section Location and Number

\*BASE MAPPING PRODUCED BY THE ALBERTA BUREAU OF SURVEYING AND MAPPING, 1962

ORTHOPHOTO SEPTEMBER, 1983  
CONTOUR INTERVAL 1.0 metre

SCALE 1 : 5 000



Canada-Alberta  
FLOOD  
DAMAGE  
REDUCTION  
PROGRAM

Alberta  
ENVIRONMENT



Environment  
Canada

Environnement  
Canada



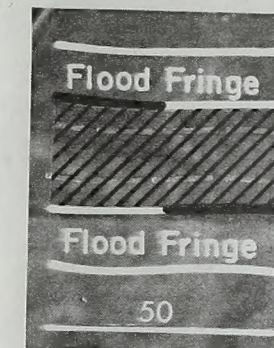






SHEET 5  
FLOOD RISK MAP  
MEDICINE HAT, ALBERTA  
( Seven Persons Creek )

LEGEND



1:100 Year  
Flood Risk Area

Cross - Section Location and Number

\*BASE MAPPING PRODUCED BY THE ALBERTA BUREAU OF SURVEYING AND MAPPING, 1984

ORTHOPHOTO SEPTEMBER, 1983  
CONTOUR INTERVAL 1.0 metre

SCALE 1 : 5 000



Canada-Alberta  
FLOOD  
DAMAGE  
REDUCTION  
PROGRAM

Alberta  
ENVIRONMENT



Environment  
Canada

Environnement  
Canada









